

SEARCH REQUEST FORM**Scientific and Technical Information Center***See tee*

Requester's Full Name: 10/073, 223 Examiner #: 26060 Date: 7-22-04
 Art Unit: 1732 Phone Number 302-1333 Serial Number: 10/073, 223
 Mail Box and Bldg/Room Location: 9D60 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

A

Title of Invention: Polymer, Resist composition & Pattern Process

Inventors (please provide full names): Nishi, Tsunehiro; Nakashima, Mutsuo;
Tachibana, Seiichiro; Funatsu, Kenji

Earliest Priority Filing Date: 2-13-02

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for a polymer of claim #6

(It only needs to have those two repeat units,
 which I circled)

STAFF USE ONLYSearcher: R. Fuller**Type of Search****Vendors and cost where applicable**

NA Sequence (#)	STN	<i>✓</i>
AA Sequence (#)	Dialog	
Structure (#)	Questel/Orbit	
Bibliographic	Dr.Link	
Litigation	Lexis/Nexis	
Fulltext	Sequence Systems	
Patent Family	WWW/Internet	
Other	Other (specify)	

Date Searcher Picked Up: 7/23/04
 Date Completed: 7/23/04
 Searcher Prep & Review Time: 40
 Clerical Prep Time: _____
 Online Time: 50

=> FILE REG
FILE 'REGISTRY' ENTERED AT 17:41:36 ON 22 JUL 2004
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 21 JUL 2004 HIGHEST RN 714195-59-2
DICTIONARY FILE UPDATES: 21 JUL 2004 HIGHEST RN 714195-59-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

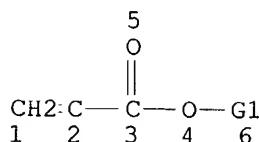
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FILE 'HCPLUS' ENTERED AT 17:41:41 ON 22 JUL 2004
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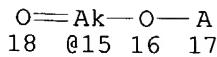
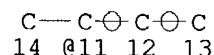
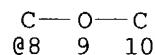
FILE COVERS 1907 - 22 Jul 2004 VOL 141 ISS 4
FILE LAST UPDATED: 21 Jul 2004 (20040721/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE
L74 SCR 2043
L76 STR



Cy @7



19,699 polymers
from the
query

VAR G1=7/8/11/15

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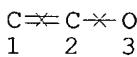
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 NSPEC IS R AT 12
 NSPEC IS R AT 13
 NSPEC IS RC AT 17
 CONNECT IS E1 RC AT 18
 DEFAULT MLEVEL IS ATOM
 GGCAT IS SAT AT 7
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L79 19699 SEA FILE=REGISTRY SSS FUL L76 AND L74
L80 STR



NODE ATTRIBUTES:

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 NSPEC IS RC AT 3
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 DEFAULT ECLEVEL IS LIMITED

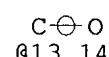
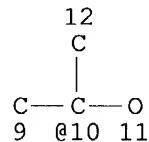
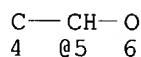
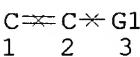
Subset search with this query
covering claim 6
per claim this can also be in a ring
911 polymers

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE

L82 911 SEA FILE=REGISTRY SUB=L79 SSS FUL L80
L86 STR



VAR G1=5/7/10/13

NODE ATTRIBUTES:

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removing previous
answer

sets

already
pointed at
other 2
searches

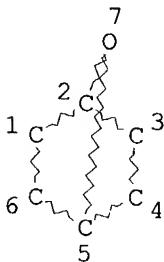
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L90 1871 SEA FILE=REGISTRY SUB=L79 SSS FUL L86
 L91 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L93 92 SEA FILE=REGISTRY SUB=L79 SSS FUL L91
 L94 32 SEA FILE=HCAPLUS ABB=ON L93
 L95 28 SEA FILE=HCAPLUS ABB=ON L94(L) (PREP OR SPN OR IMF) / RL
 L96 27 SEA FILE=HCAPLUS ABB=ON L95(L)?RESIST?
 L97 793 SEA FILE=HCAPLUS ABB=ON L90
 L98 452 SEA FILE=HCAPLUS ABB=ON L97(L)?RESIST?
 L99 365 SEA FILE=HCAPLUS ABB=ON L98(L) (PREP OR SPN OR IMF) / RL
 L100 131 SEA FILE=HCAPLUS ABB=ON L99 AND PATTERN?
 L101 119 SEA FILE=HCAPLUS ABB=ON L100 AND PHOTOREISTS/IT
 L102 20 SEA FILE=HCAPLUS ABB=ON L101 AND (?VINYL? OR ?ALLYL?)
 L105 35 SEA FILE=HCAPLUS ABB=ON L101 AND ETHER?
 L106 44 SEA FILE=HCAPLUS ABB=ON L102 OR L105
 L107 526 SEA FILE=HCAPLUS ABB=ON L82
 L108 67 SEA FILE=HCAPLUS ABB=ON L107(L) PHOTORESIST?(L) (PREP OR IMF OR SPN) / RL
 L109 56 SEA FILE=HCAPLUS ABB=ON (L108 OR L106 OR L96) NOT (L106 OR L96)

56 CA references with utility

=> D L109 BIB ABS HITSTR 1-56

L109 ANSWER 1 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:493111 HCAPLUS
 DN 141:62092
 TI Positive-working photoresist resin composition
 IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 79 pp.

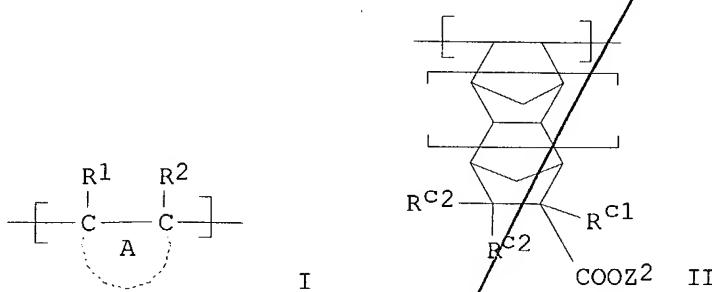
CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004170871	A2	20040617	JP 2002-339432	20021122
PRAI	JP 2002-339432		20021122		

GI



AB The title composition contains acid-sensitive alkali-solubilizable resins and a photoacid-generator, wherein the resin contains repeating unit I(RI-1, RI-2 = H, F, Cl, Br, etc.; A = alicyclic ring residue) and [-C(RII-1)(RII-2)-C(RII-3)O-L1-Z1] (RII-1-II-3 = H, F, Cl, Br, etc.; L1 = 2-valent connecting group; Z1 = acid-sensitive group) or II(Z2 = acid-sensitive group; R^{c1} = F-substituted alkyl; R^{c2} = H, halo, cyano, alkyl; k = 0, 1). The composition provides photoresist of good transparency towards 157 nm beam and good-dry etching resistance and shows high sensitivity and high dissoln. contrast.

IT 705288-02-4P 705297-61-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin in pos.-working photoresist resin composition)

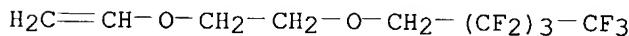
RN 705288-02-4 HCAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 5-[2-(ethoxyethoxy)-1,1,2,2,3,3,4,4-nonafluoropentane and octafluorocyclopentene (9CI) (CA INDEX NAME)

CM 1

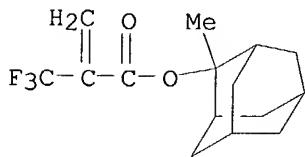
CRN 572911-07-0

CMF C9 H9 F9 O2



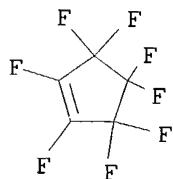
CM 2

CRN 188739-86-8
CMF C15 H19 F3 O2



CM 3

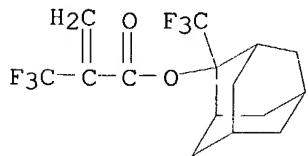
CRN 559-40-0
CMF C5 F8



RN 705297-61-6 HCPLUS
CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, 6(or 7)-
(ethenyloxy)decahydro-2-(trifluoromethyl)-, 1,1-dimethylethyl ester,
polymer with octafluorocyclopentene and 2-(trifluoromethyl)tricyclo[3.3.1.
13,7]dec-2-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

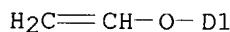
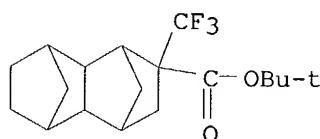
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CRN 705297-60-5
CMF C15 H16 F6 O2

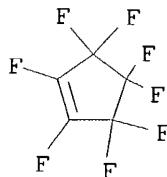


CM 2

CRN 679804-92-3
CMF C20 H27 F3 O3
CCI IDS



CM 3

CRN 559-40-0
CMF C5 F8

L109 ANSWER 2 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:291622 HCAPLUS
 DN 140:329533
 TI Positive-working photoresist composition containing specific resin
 IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 83 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004109834	A2	20040408	JP 2002-275241	20020920
PRAI JP 2002-275241		20020920		

AB The title composition contains a resin increasing the solubility in an alkali solution by an acid and an actinic ray- or radiation sensitive acid-generator, wherein the resin has repeating unit $[-\text{C}(\text{R1})(\text{R2})-\text{C}(\text{R3})(-\text{O}-\text{L1}-[\text{C}(\text{C}(\text{R21R22R23}))(\text{C}(\text{R24R25R26}))\text{n}-\text{L2}-\text{C}(\text{OZa})(\text{C}(\text{R27R28R29}))(\text{C}(\text{R30R31R32}))])$ (r1-3 = H, halo, cyano, alkyl; R21-32 = H, F, alkyl; L1-2 = single bond, 2-valent connecting group; n = 0, 1) and repeating unit containing the structure $-[\text{C}(\text{R4})(\text{R5})]^m-\text{Z1}-(\text{X})^p$ (R4-5 = alkyl; Z1 = (p+1)-valent alicyclic hydrocarbon; X = F, Cl, OH< etc.; m = 0, 1; p = integer 1-4). Composition is suitable for exposure beam of ≤ 160 nm and show good characteristics on development, image formation, dry etching resistance, etc.

IT 677354-71-1P 677354-72-2P 677354-73-3P
 677354-76-6P 677354-81-3P 677354-85-7P
 677355-61-2P 677355-64-5P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin in pos.-working photoresist composition)

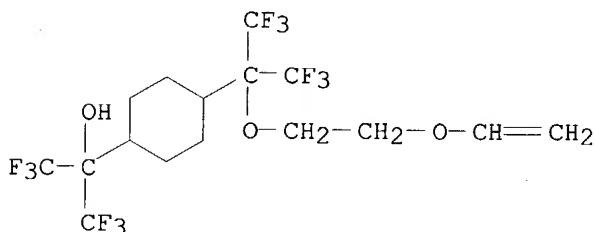
RN 677354-71-1 HCAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 4-[1-[2-(ethenyl)ethoxy]-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]- α,α -bis(trifluoromethyl)cyclohexanemethanol and 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 654076-29-6

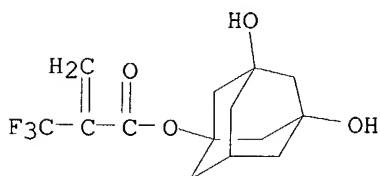
CMF C16 H18 F12 O3



CM 2

CRN 521913-16-6

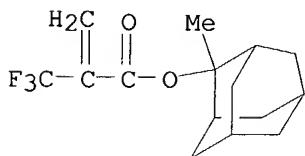
CMF C14 H17 F3 O4



CM 3

CRN 188739-86-8

CMF C15 H19 F3 O2

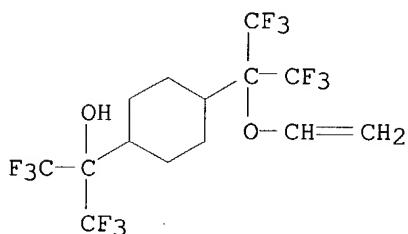


RN 677354-72-2 HCAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 4-[1-(ethenylloxy)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]- α,α -bis(trifluoromethyl)cyclohexanemethanol and 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

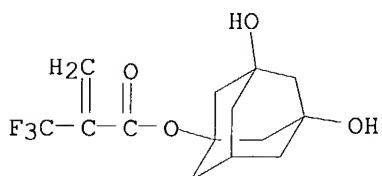
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CRN 654076-31-0
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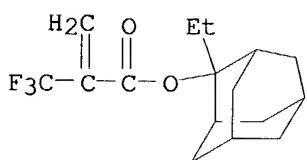
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CRN 521913-16-6
CMF C14 H17 F3 O4



CM 3

CRN 444168-44-9
CMF C16 H21 F3 O2

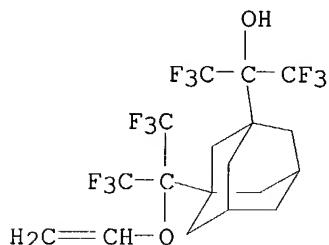


RN 677354-73-3 HCAPLUS
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 3-[1-(ethenylloxy)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]- α,α -bis(trifluoromethyl)tricyclo[3.3.1.13,7]decane-1-methanol and 2-methylbicyclo[2.2.1]hept-2-yl

2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

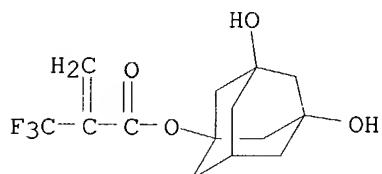
CM 1

CRN 676515-92-7
CMF C18 H18 F12 O2



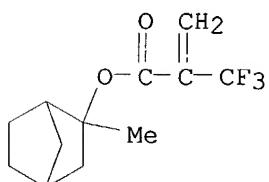
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CRN 521913-16-6
CMF C14 H17 F3 O4



CM 3

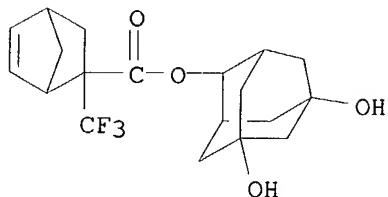
CRN 430437-41-5
CMF C12 H15 F3 O2



RN 677354-76-6 HCPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-(trifluoromethyl)-,
5,7-dihydroxytricyclo[3.3.1.13,7]dec-2-yl ester, polymer with
6-[1-[2-(ethenyloxy)ethoxy]-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]-
 α,α -bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-methanol and
2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-(trifluoromethyl)-2-propenoate
(9CI) (CA INDEX NAME)

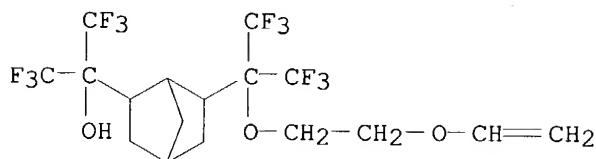
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CRN 677354-75-5
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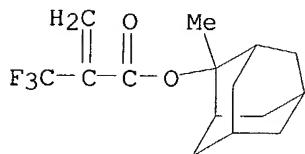
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CRN 677354-74-4
CMF C17 H18 F12 O3



CM 3

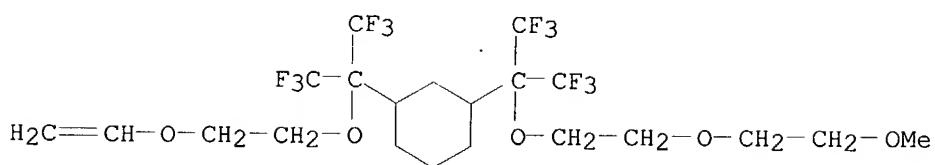
CRN 188739-86-8
CMF C15 H19 F3 O2



RN 677354-81-3 HCAPLUS
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 3-[1-[2-(ethenyl)ethoxy]-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]- α,α -bis(trifluoromethyl)cyclohexanemethanol, 1-[1-[2-(ethenyl)ethoxy]-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]-3-[2,2,2-trifluoro-1-[2-(2-methoxyethoxy)ethoxy]-1-(trifluoromethyl)ethyl]cyclohexane and 1-methyl-1-(4-methylcyclohexyl)ethyl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

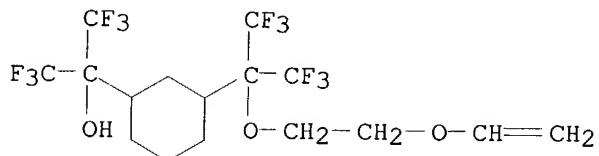
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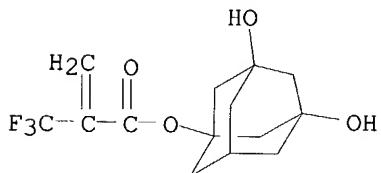
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CRN 677354-79-9
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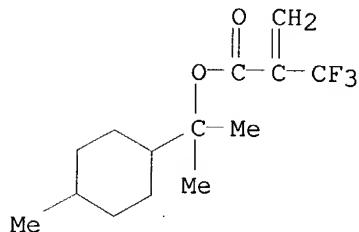
CM 3

CRN 521913-16-6
CMF C14 H17 F3 O4



CM 4

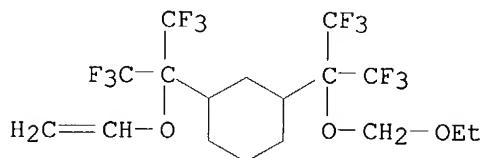
CRN 430437-43-7
CMF C14 H21 F3 02



RN 677354-85-7 HCAPLUS
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(CA INDEX NAME)

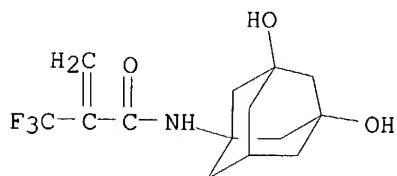
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CRN 677354-84-6
CMF C17 H20 F12 O3



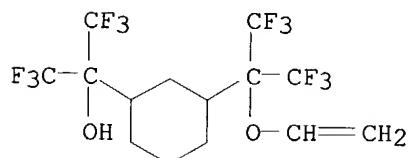
CM 2

CRN 677354-83-5
CMF C14 H18 F3 N O3



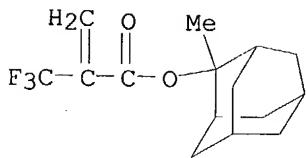
CM 3

CRN 677354-82-4
CMF C14 H14 F12 O2



CM 4

CRN 188739-86-8
CMF C15 H19 F3 O2



RN 677355-61-2 HCAPLUS

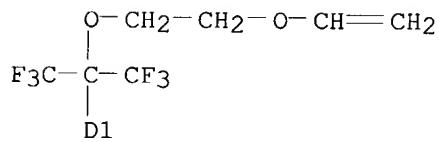
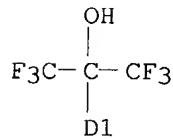
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with [1-[2-(ethenyl)ethoxy]-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]- α,α -bis(trifluoromethyl)cyclohexanemethanol and 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 677355-60-1

CMF C16 H18 F12 O3

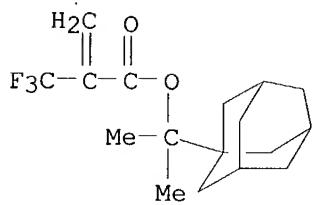
CCI IDS



CM 2

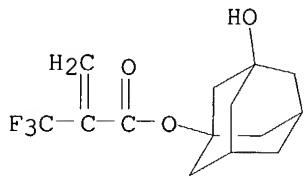
CRN 622378-55-6

CMF C17 H23 F3 O2



CM 3

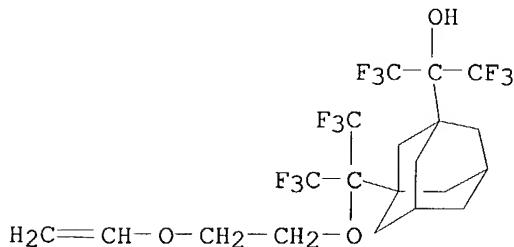
CRN 521913-15-5
CMF C14 H17 F3 O3



RN 677355-64-5 HCPLUS
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 5(or 6)-hydroxybicyclo[2.2.1]hept-2-yl ester, polymer with 3-[1-[2-(ethenylloxy)ethoxy]-2,2-trifluoro-1-(trifluoromethyl)ethyl]- α,α -bis(trifluoromethyl)tricyclo[3.3.1.13,7]decane-1-methanol and 1-methylcyclohexyl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

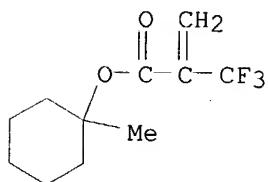
CM 1

CRN 677355-63-4
CMF C20 H22 F12 O3



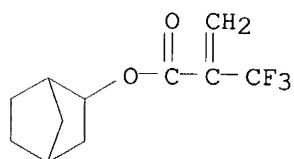
CM 2

CRN 677355-62-3
CMF C11 H15 F3 O2



CM 3

CRN 651740-52-2
 CMF C11 H13 F3 O3
 CCI IDS



D1-OH

L109 ANSWER 3 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:250275 HCPLUS

DN 140:278429

TI Positive photoresist compositions for F2 excimer lasers with good heat resistance and suppressed line edge roughness

IN Mizutani, Kazuyoshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 61 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004093768	A2	<u>20040325</u>	JP 2002-253255	20020830
PRAI JP 2002-253255		<u>20020830</u>		

AB The compns. comprise (A) photoacid generators and (B) resins increasing their alkali solubility by acid decomposition, wherein the resins have crosslinked

repeating units CRaRbRC(OLOCR'C'R'a'R'b') (Ra, Rb, Rc, Ra', Rb', Rc' = H, F, fluoroalkyl; L = linking group).

IT 674777-92-5P 674781-14-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos. photoresists for F2 excimer lasers with good heat resistance and suppressed line edge roughness)

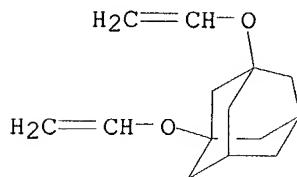
RN 674777-92-5 HCPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-

yl ester, polymer with 1,3-bis(ethenyloxy)tricyclo[3.3.1.13,7]decane and
 α,α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol
(9CI) (CA INDEX NAME)

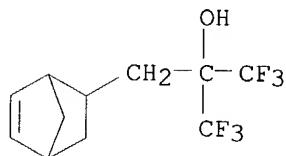
CM 1

CRN 406226-15-1
CMF C14 H20 O2



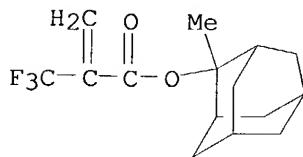
CM 2

CRN 196314-61-1
CMF C11 H12 F6 O



CM 3

CRN 188739-86-8
CMF C15 H19 F3 O2

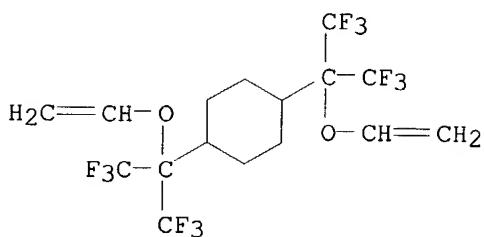


RN 674781-14-7 HCAPLUS
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1,4-bis[1-(ethenyloxy)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]cyclohexane and α,α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol (9CI) (CA INDEX NAME)

CM 1

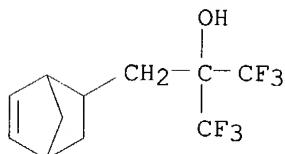
CRN 674781-13-6

CMF C16 H16 F12 O2



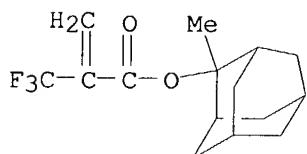
CM 2

CRN 196314-61-1
CMF C11 H12 F6 O



CM 3

CRN 188739-86-8
CMF C15 H19 F3 O2



L109 ANSWER 4 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2004:250257 HCPLUS

DN 140:294777

TI Positive photoresist compositions for F2 excimer lasers with good heat resistance and suppressed line edge roughness

IN Mizutani, Kazuyoshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 61 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

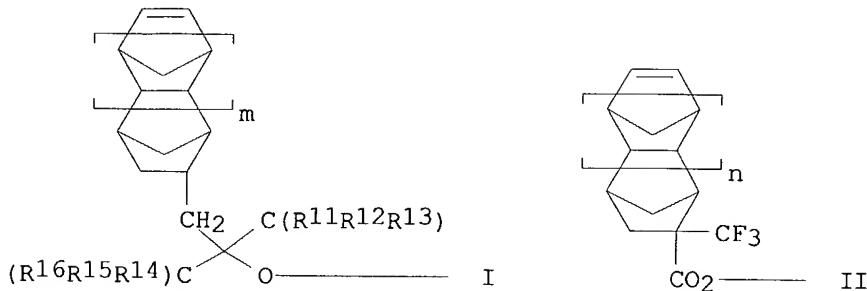
FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI JP 2004093690 A2 20040325 JP 2002-251870 20020829
 PRAI JP 2002-251870 20020829
 GI



AB The compns. comprise (A) photoacid generators and (B) resins increasing their alkali solubility by acid decomposition, wherein the resins have ≥ 1 repeating units derived from monomers having ≥ 2 residual groups selected from I ($R_{11-16} = H, F$, fluoroalkyl; $R_{11} = R_{12} = R_{13} = R_{14} = R_{15} = R_{16} \neq H$; $m = 0, 1$) and II ($n = \text{same as } m$).

IT **674777-92-5P**

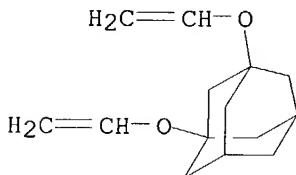
RL: **IMF (Industrial manufacture)**; TEM (Technical or engineered material use); **PREP (Preparation)**; **USES (Uses)**
 (pos. photoresists for F2 excimer lasers with good heat resistance and suppressed line edge roughness)

RN 674777-92-5 HCPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1,3-bis(ethenyloxy)tricyclo[3.3.1.13,7]decane and α,α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol (9CI) (CA INDEX NAME)

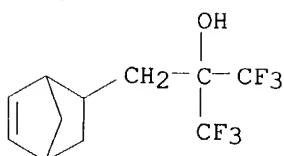
CM 1

CRN 406226-15-1
 CMF C14 H20 O2

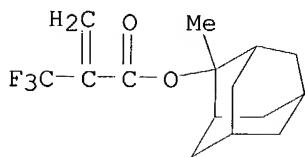


CM 2

CRN 196314-61-1
 CMF C11 H12 F6 O



CM 3

CRN 188739-86-8
CMF C15 H19 F3 O2L109 ANSWER 5 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2004:219229 HCPLUS

DN 140:261410

TI Positive-working photoresist composition

IN Fujimori, Toru

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 116 pp.

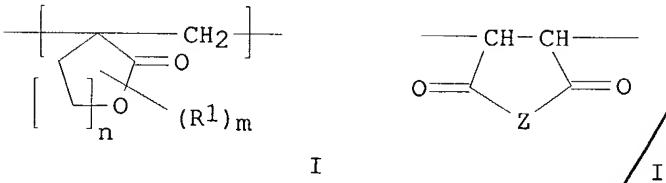
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004085900	A2	20040318	JP 2002-246979	20020827
PRAI JP 2002-246979		20020827		
GI				



AB The title composition contains a compound having -OH groups or modified -OH groups, an alkali-solubilizable resin, and an acid generator, wherein the resin has repeating unit I ($r_1 = \text{alkyl}$; $m = 0-4$ integer; $n = 0-4$ integer) or II ($Z = \text{O}$, NR_3a ; $R_3\text{a} = \text{H}$, OH , alkyl, etc.) and $[-\text{CH}(R_1\text{a})-\text{CH}(-\text{OR}_2\text{a})]$ ($r_1\text{a} = \text{H}$, hydrocarbon; $R_2\text{a} = \text{hydrocarbon}$). The composition provides good development properties and good pattern profile.

IT 564472-84-0P 564472-86-2P 564472-87-3P
564472-92-0P 566162-13-8P 566162-15-0P
566162-19-4P 566162-22-9P

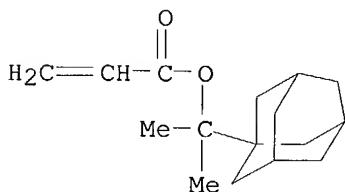
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin; pos.-working photoresist composition)

RN 564472-84-0 HCAPLUS

CN 2-Propenoic acid, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 2-(ethenyloxy)-2-methylpropane, 2,5-furandione and 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-ylethyl 2-propenoate (9CI) (CA INDEX NAME)

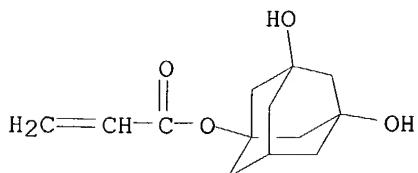
CM 1

CRN 300833-10-7
CMF C16 H24 O2



CM 2

CRN 216581-85-0
CMF C13 H18 O4



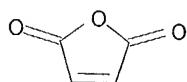
CM 3

CRN 926-02-3
CMF C6 H12 O

t-BuO-CH=CH₂

CM 4

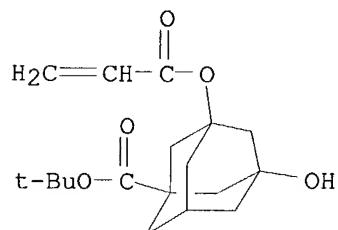
CRN 108-31-6
CMF C4 H2 O3



RN 564472-86-2 HCPLUS
CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, 3-hydroxy-5-[(1-oxo-2-propenyl)oxy]-, 1,1-dimethylethyl ester, polymer with 3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 251563-12-9
CMF C18 H26 O5



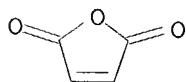
CM 2

CRN 110-87-2
CMF C5 H8 O



CM 3

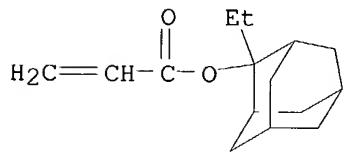
CRN 108-31-6
CMF C4 H2 O3



RN 564472-87-3 HCPLUS
CN 2-Propenoic acid, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1-(ethenoxy)-2-methylpropane, 2,5-furandione and tetrahydro-5-oxo-3-furanyl 2-propenoate (9CI) (CA INDEX NAME)

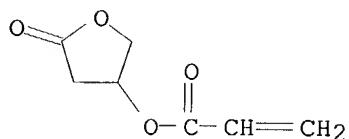
CM 1

CRN 303186-14-3
CMF C15 H22 O2



CM 2

CRN 130225-01-3
CMF C7 H8 O4



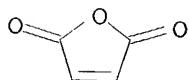
CM 3

CRN 109-53-5
CMF C6 H12 O

i-BuO-CH=CH₂

CM 4

CRN 108-31-6
CMF C4 H2 O3

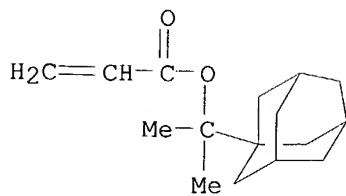


RN 564472-92-0 HCAPLUS

CN 2-Propenoic acid, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester, polymer with 3,4-dihydro-2H-pyran, 2,5-furandione and 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-yethyl 2-propenoate (9CI) (CA INDEX NAME)

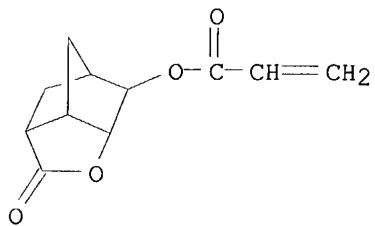
CM 1

CRN 300833-10-7
CMF C16 H24 O2



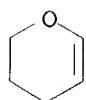
CM 2

CRN 242129-35-7
CMF C11 H12 O4



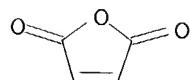
CM 3

CRN 110-87-2
CMF C5 H8 O



CM 4

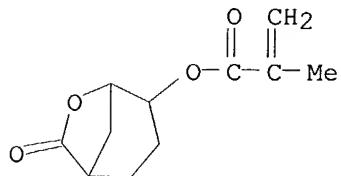
CRN 108-31-6
CMF C4 H2 O3



RN 566162-13-8 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 7-oxo-6-oxabicyclo[3.2.1]oct-4-yl ester,
polymer with (ethenyloxy)cyclohexane, 2,5-furandione and
2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

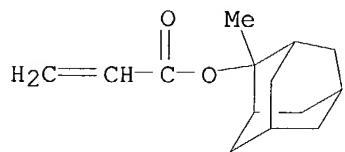
CM 1

CRN 335163-70-7
CMF C11 H14 O4



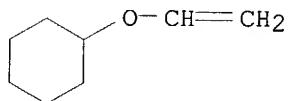
CM 2

CRN 249562-06-9
CMF C14 H20 O2



CM 3

CRN 2182-55-0
CMF C8 H14 O



CM 4

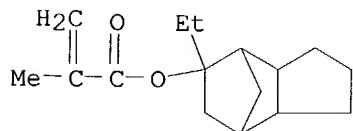
CRN 108-31-6
CMF C4 H2 O3



RN 566162-15-0 HCAPLUS
CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, 2-(ethenyloxy)ethyl ester,
polymer with 5-ethyloctahydro-4,7-methano-1H-inden-5-yl
2-methyl-2-propenoate, 2,5-furandione and 3-hydroxytricyclo[3.3.1.13,7]dec-
1-yl 2-propenoate (9CI) (CA INDEX NAME)

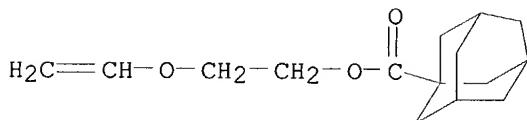
CM 1

CRN 348089-09-8
CMF C16 H24 O2



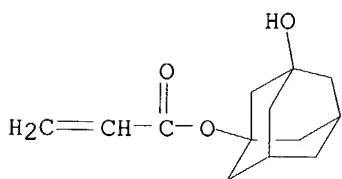
CM 2

CRN 219774-72-8
CMF C15 H22 O3



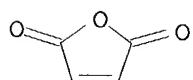
CM 3

CRN 216581-76-9
CMF C13 H18 O3



CM 4

CRN 108-31-6
CMF C4 H2 O3



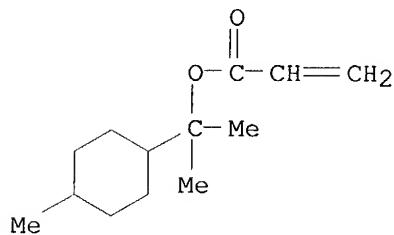
RN 566162-19-4 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-(1,1-dimethylethyl)-, 2-(ethenyloxy)ethyl ester, polymer with 2,5-furandione, 1-methyl-1-(4-methylcyclohexyl)ethyl

2-propenoate and 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-propenoate
(9CI) (CA INDEX NAME)

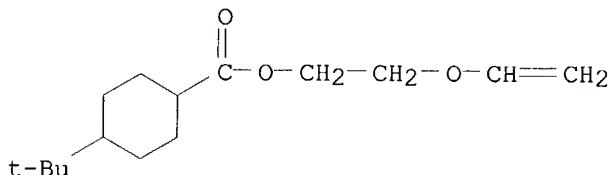
CM 1

CRN 342648-11-7
CMF C13 H22 O2



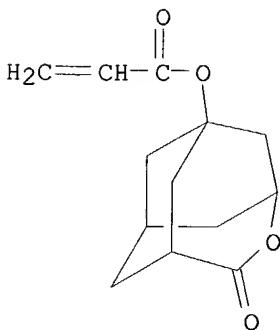
CM 2

CRN 312694-56-7
CMF C15 H26 O3



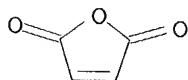
CM 3

CRN 265999-35-7
CMF C13 H16 O4



CM 4

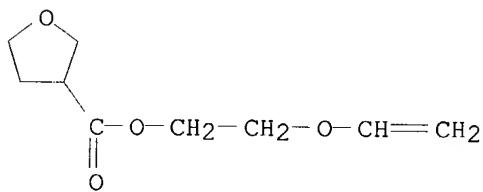
CRN 108-31-6
CMF C4 H2 O3



RN 566162-22-9 HCPLUS
CN 3-Furancarboxylic acid, tetrahydro-, 2-(ethenylloxy)ethyl ester, polymer with 2,5-furandione, 3-hydroxy-5,7-dimethyltricyclo[3.3.1.13,7]dec-1-yl 2-propenoate and octahydro-5-methyl-4,7-methano-1H-inden-5-yl 2-propenoate (9CI) (CA INDEX NAME)

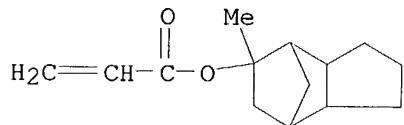
CM 1

CRN 566162-21-8
CMF C9 H14 O4



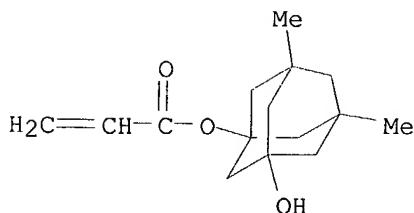
CM 2

CRN 348089-10-1
CMF C14 H20 O2



CM 3

CRN 216582-11-5
CMF C15 H22 O3



CM 4

CRN 108-31-6
CMF C4 H2 O3



L109 ANSWER 6 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:180145 HCAPLUS
DN 140:225800
TI Chemically amplified photoresists and method for pattern formation
IN Harada, Yuji; Hatakeyama, Jun; Kawai, Yoshio; Sasako, Masaru; Endo,
Masataka; Kishimura, Shinji; Maeda, Kazuhiko; Otani, Michitaka;
Komoritani, Haruhiko
PA Shin-Etsu Chemical Industry Co., Ltd., Japan; Matsushita Electric
Industrial Co., Ltd.; Central Glass Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 41 pp.

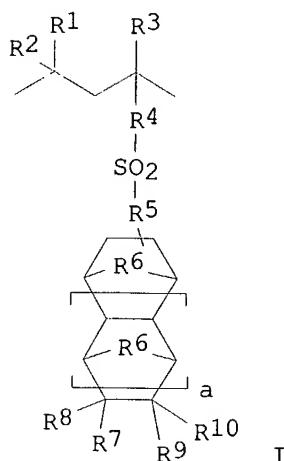
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004067972	A2	20040304	JP 2002-233045	20020809
PRAI JP 2002-233045		20020809		



AB The photoresists contain polymers of Mw 1000-500,000 having repeating units I [R1-R3 = H, F, (fluorinated) C1-40 alkyl; R4 = single bond, (fluorinated) C1-40 alkylene; R5 = single bond, O, (fluorinated) C1-40 alkylene; R6 = methylene, O, S; R7-R10 = H, F, fluorinated C1-4 alkyl, R11OR12, R11CO2R12, OR12; R11 = single bond, (fluorinated) C1-40 alkylene; R12 = H, acid-labile group; a = 0, 1]. The photoresists are patternwise exposed to 100-180-nm or 1-30-nm high-energy beams (e.g., F2 laser beams, Ar2 laser beams, soft x rays) and developed (after post-exposure baking).

IT 666258-18-0P 666258-20-4P 666258-22-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chemical amplified pos. photoresists showing high sensitivity to high-energy beams)

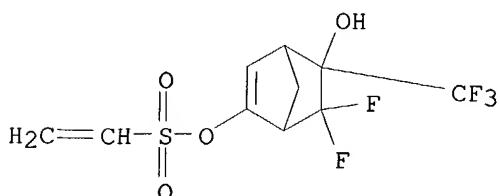
RN 666258-18-0 HCPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with α,α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol and 6,6-difluoro-5-hydroxy-5-(trifluoromethyl)bicyclo[2.2.1]hept-2-en-2-yl ethenesulfonate (9CI) (CA INDEX NAME)

CM 1

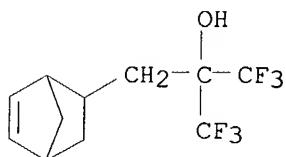
CRN 666258-15-7

CMF C10 H9 F5 O4 S



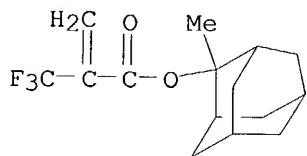
CM 2

CRN 196314-61-1
CMF C11 H12 F6 O



CM 3

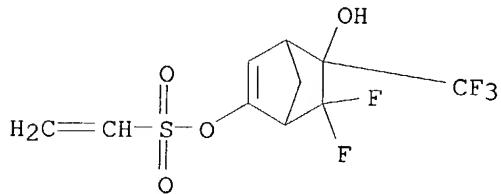
CRN 188739-86-8
CMF C15 H19 F3 O2



RN 666258-20-4 HCPLUS
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 6,6-difluoro-5-hydroxy-5-(trifluoromethyl)bicyclo[2.2.1]hept-2-en-2-yl ethenesulfonate and 4-ethenyl- α,α -bis(trifluoromethyl)benzenemethanol (9CI) (CA INDEX NAME)

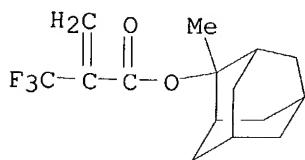
CM 1

CRN 666258-15-7
CMF C10 H9 F5 O4 S



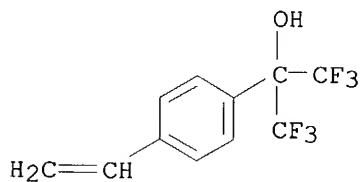
CM 2

CRN 188739-86-8
CMF C15 H19 F3 O2



CM 3

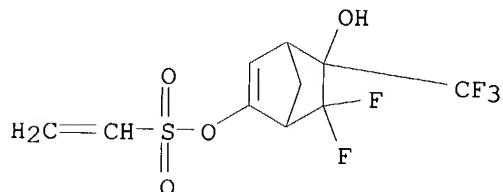
CRN 2386-82-5
CMF C11 H8 F6 O



RN 666258-22-6 HCAPLUS
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 6,6-difluoro-5-hydroxy-5-(trifluoromethyl)bicyclo[2.2.1]hept-2-en-2-yl ethenesulfonate and 5-ethenyl- $\alpha,\alpha,\alpha',\alpha'$ -tetrakis(trifluoromethyl)-1,3-benzenedimethanol (9CI) (CA INDEX NAME)

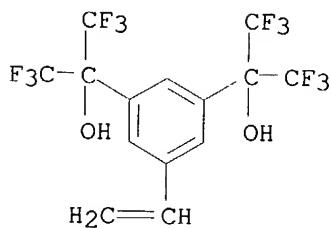
CM 1

CRN 666258-15-7
CMF C10 H9 F5 O4 S

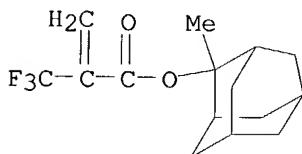


CM 2

CRN 568587-26-8
CMF C14 H8 F12 O2



CM 3

CRN 188739-86-8
CMF C15 H19 F3 O2

L109 ANSWER 7 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:989982 HCPLUS
 DN 140:50311
 TI Positive photoresist composition
 IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi
 PA Fuji Photo Film Co., Ltd., Japan
 SO U.S. Pat. Appl. Publ., 68 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003232277	A1	20031218	US 2003-422789	20030425
	JP 2003316007	A2	<u>20031106</u>	JP 2002-126433	20020426
	JP 2004062045	A2	<u>20040226</u>	JP 2002-223234	20020731
	JP 2004062049	A2	<u>20040226</u>	JP 2002-223386	20020731
PRAI	JP 2002-126433	A	20020426		
	JP 2002-223234	A	20020731		
	JP 2002-223386	A	20020731		

AB The invention relates to a pos. resist composition comprising: (A1) a resin containing at least one type of repeating unit represented by the specific formula and addnl. containing at least one type of repeating unit represented by the specific formula, which increases the solubility in an alkali developing solution by the action of an acid, and (B) a compound which is capable of generating an acid by the action of actinic ray or radiation. The composition shows good transparency towards ≤160 nm light.

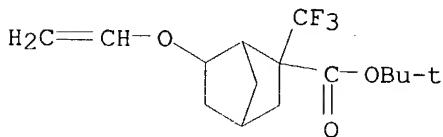
IT 634920-65-3P 634920-77-7P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin; pos. photoresist composition)

RN 634920-65-3 HCPLUS

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 6-(ethenyloxy)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with α,α -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol, 2-(ethenylsulfonyl)bicyclo[2.2.1]heptane and 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

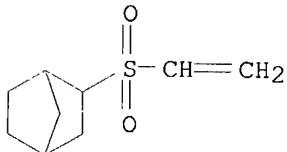
CM 1

CRN 634920-64-2
CMF C15 H21 F3 O3



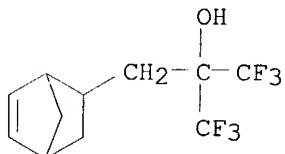
CM 2

CRN 634920-63-1
CMF C9 H14 O2 S



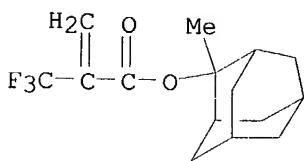
CM 3

CRN 196314-61-1
CMF C11 H12 F6 O



CM 4

CRN 188739-86-8
CMF C15 H19 F3 O2



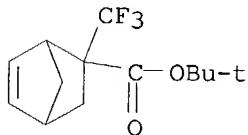
RN 634920-77-7 HCPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with (ethenyloxy)cyclohexane, (ethenylsulfonyl)cyclohexane and 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 365568-55-4

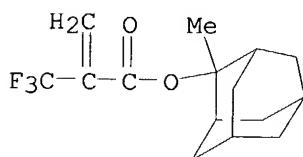
CMF C13 H17 F3 O2



CM 2

CRN 188739-86-8

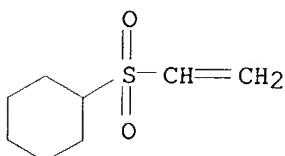
CMF C15 H19 F3 O2



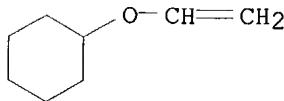
CM 3

CRN 21961-10-4

CMF C8 H14 O2 S



CM 4

CRN 2182-55-0
CMF C8 H14 O

L109 ANSWER 8 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:945855 HCPLUS
 DN 140:21264
 TI Positive-working photoresist composition containing specific resin
 IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 55 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003345018	A2	20031203	JP 2002-149405	20020523
PRAI JP 2002-149405		20020573		

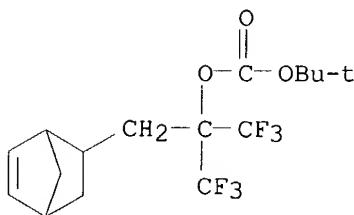
AB The title composition contains a resin increasing solubility in an alkali developer by an acid and an actinic ray- or radiation-sensitive acid generator, wherein the resin contains repeating unit [-C(R1)(R2)-CC(R3)(R4)] (R1-3 = H, halo, cyano, alkyl; R4 = alkyl, aryl) and fluorine in the side chain. The composition shows the high transparency towards ≤160 nm light and provides photoresist of high resolution

IT 629653-59-4P 629653-67-4P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resin; pos.-working photoresist composition)

RN 629653-59-4 HCPLUS
 CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1-(bicyclo[2.2.1]hept-5-en-2-ylmethyl)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl 1,1-dimethylethyl carbonate and 1-(ethenyloxy)-2-methylpropane (9CI) (CA INDEX NAME)

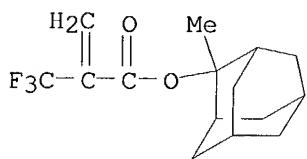
CM 1

CRN 196314-63-3
 CMF C16 H20 F6 O3



CM 2

CRN 188739-86-8
CMF C15 H19 F3 O2



CM 3

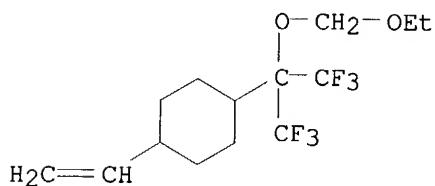
CRN 109-53-5
CMF C6 H12 O

i-BuO-CH=CH₂

RN 629653-67-4 HCPLUS
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1-ethenyl-4-[1-(ethoxymethoxy)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]cyclohexane and 1-(ethenylloxy)butane (9CI) (CA INDEX NAME)

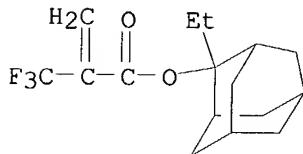
CM 1

CRN 622840-89-5
CMF C14 H20 F6 O2



CM 2

CRN 444168-44-9
CMF C16 H21 F3 O2



CM 3

CRN 111-34-2
CMF C6 H12 O

n-BuO—CH=CH₂

L109 ANSWER 9 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2003:906062 HCPLUS
DN 139:388481
TI Copolymer of alicyclic vinyl ether and base polymer containing the copolymer for photoresist
IN Omori, Hideki; Yamagishi, Takanori; Taniguchi, Masanobu; Takahashi, Eiji; Miwa, Takuya
PA Maruzen Oil Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003327628	A2	<u>20031119</u>	JP 2002-133688	20020509
PRAI JP 2002-133688		<u>20020509</u>		

AB The copolymer contains a (meth)acrylic acid derivative repeating unit and CR1R2C(R3)OAB [R1-R3 = H, OH, alkoxy, halogen, (halogen- or substituent-containing) C1-6 alkyl; A = direct bond, (substituted) C1-4 alkylene, divalent group comprising (substituted) C1-4 alkylene and ether linkage, ester linkage or CO; B = (substituted) C5-30 alicyclic group; part of R2 or R3 may be linked with A or B to form rings]. The photoresist base polymer contains the copolymer and the photoresist contains the base polymer and a light-sensitive acid-generating agent. The dry etching-resistant photoresist is suitable for ArF excimer laser, etc., for photolithog. in highly integrated circuit fabrication.

IT 624725-22-0P 624725-24-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(copolymer of alicyclic monomer and (meth)acrylic acid derivative for photoresist with dry etching resistance)

RN 624725-22-0 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 5(or 6)-[(ethoxyloxy)methyl]octahydro-4,7-methano-1H-

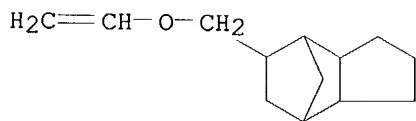
indenemethanol (9CI) (CA INDEX NAME)

CM 1

CRN 485800-39-3

CMF C14 H22 O2

CCI IDS

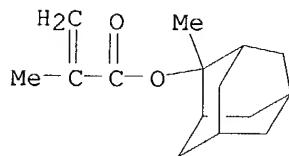


D1-CH₂-OH

CM 2

CRN 177080-67-0

CMF C15 H22 O2



RN 624725-24-2 HCPLUS

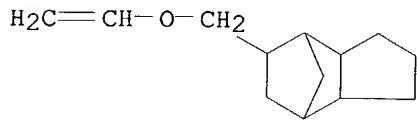
CN 2-Propenoic acid, 2-methyl-, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl ester, polymer with 5(or 6)-[(ethenyloxy)methyl]octahydro-4,7-methano-1H-indenemethanol and 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 485800-39-3

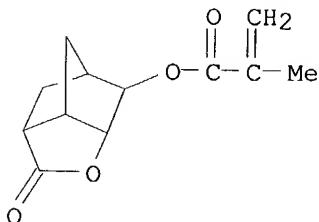
CMF C14 H22 O2

CCI IDS

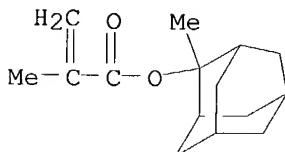


D1-CH₂-OH

CM 2

CRN 254900-07-7
CMF C12 H14 O4

CM 3

CRN 177080-67-0
CMF C15 H22 O2

L109 ANSWER 10 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:902631 HCPLUS
 DN 139:401538
 TI Manufacture of positive-working photoresist composition
 IN Nakao, Hajime
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 68 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003330202	A2	20031119	JP 2002-134146	20020509
PRAI JP 2002-134146		20020509		

AB A pos.-working photoresist composition manufacture includes a filtration process to filter an alkaline-developable resin having alicyclic structures by an ion-exchange filter. Photoresist composition shows smaller sensitivity fluctuation and excellent alkaline developer coatability.

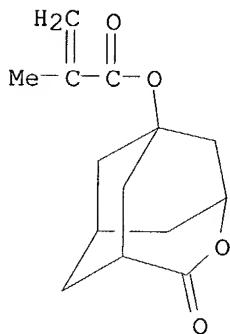
IT 398140-48-2P
 RL: IMF (Industrial manufacture); PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (manufacture of pos.-working photoresist composition including filtration process of alkaline-developable resin by ion-exchange filter)

RN 398140-48-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonylpropyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

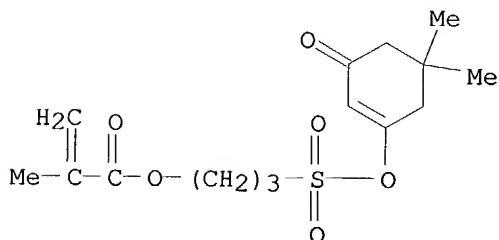
CM 1

CRN 348596-87-2
CMF C14 H18 O4



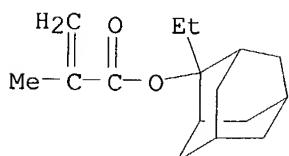
CM 2

CRN 289040-47-7
CMF C15 H22 O6 S



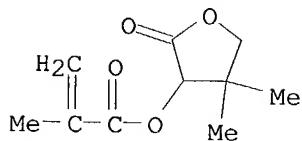
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 04



L109 ANSWER 11 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:902388 HCAPLUS

DN 139:388477

TI Photosensitive polymer involving hydrophilic repeating units and hydrophobic repeating units and chemically amplified photoresist composition containing the polymer

IN Kim, Hyun-Yong; Gu, Sang-Kyun; Jung, Myung-Ho
PA Samsung Electronics Co., Ltd., S. Korea
SO Jpn Kokai Tokkyo Koho, 14 pp

SO Jpn. Kokai Tokkyo Koho, 14 pp.
Coden: JKXXAE

CODEN: JKXXAF

DT Patent

LA Japanese
EAN 978-1

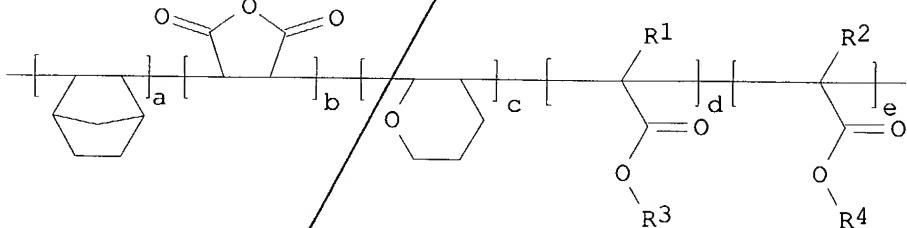
FAN.CNT 1

PATENT NO.

PI JP 2003327631 A2 20031119
US 2003215758 A1 20031120
CN 1456580 A 20031119
PRAI KR 2002-25137 A 20020507

APPLICATION NO. DATE

GI



I

AB The photosensitive polymer contains structures, which involves alicyclic repeating unit, I [R1, R2 = H, Me; R3 = acid-decomposable C4-20 hydrocarbyl; R4 = hydrophilic group; $a/(a + b + c + d + e) = 0.01-0.6$, $b/(a + b + c + d + e) = 0.05-0.7$; $c/(a + b + c + d + e) = 0.01-0.6$, $d/(a + b + c + d + e) = 0.1-0.5$, $e/(a + b + c + d + e) = 0.01-0.5$]. The chemical amplified photoresist composition contains the polymer and a photoacid generator, which shows enhanced resistance to dry etching and good adhesion to substrate.

IT 624722-01-6P 624722-02-7P 624722-03-8P

624722-04-9P 624722-06-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polymer involving hydrophilic units and hydrophobic units and chemical amplified photoresist with dry etching resistance)

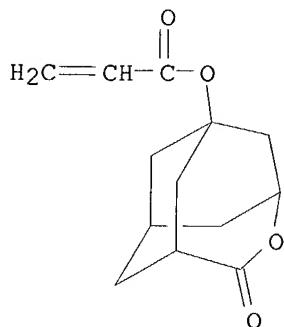
RN 624722-01-6 HCAPLUS

CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran, 2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 265999-35-7

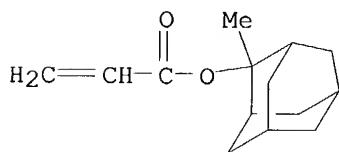
CMF C13 H16 O4



CM 2

CRN 249562-06-9

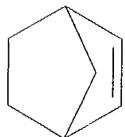
CMF C14 H20 O2



CM 3

CRN 498-66-8

CMF C7 H10



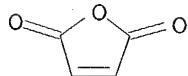
CM 4

CRN 110-87-2
CMF C5 H8 O



CM 5

CRN 108-31-6
CMF C4 H2 O3

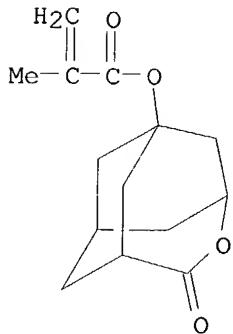


RN 624722-02-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran,
2,5-furandione and 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

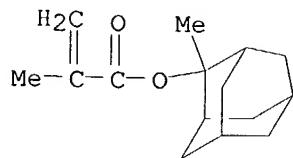
CM 1

CRN 348596-87-2
CMF C14 H18 O4



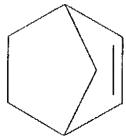
CM 2

CRN 177080-67-0
CMF C15 H22 O2



CM 3

CRN 498-66-8
CMF C₇ H₁₀



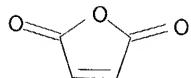
CM 4

CRN 110-87-2
CMF C₅ H₈ O



CM 5

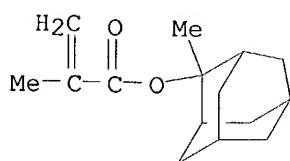
CRN 108-31-6
CMF C₄ H₂ O₃



RN 624722-03-8 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran,
2,5-furandione and 2-methyltricyclo[3.3.1.13,7]dec-2-yl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

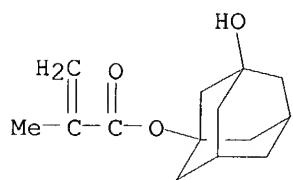
CM 1

CRN 177080-67-0
CMF C₁₅ H₂₂ O₂



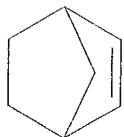
CM 2

CRN 115372-36-6
CMF C14 H20 O3



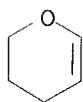
CM 3

CRN 498-66-8
CMF C7 H10



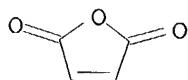
CM 4

CRN 110-87-2
CMF C5 H8 O



CM 5

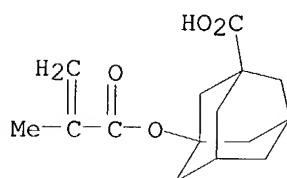
CRN 108-31-6
CMF C4 H2 O3



RN 624722-04-9 HCPLUS
CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, 3-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran, 2,5-furandione and 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

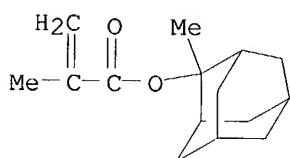
CM 1

CRN 212580-10-4
CMF C15 H20 O4



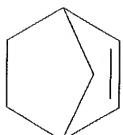
CM 2

CRN 177080-67-0
CMF C15 H22 O2



CM 3

CRN 498-66-8
CMF C7 H10



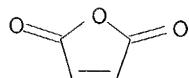
CM 4

CRN 110-87-2
CMF C5 H8 O



CM 5

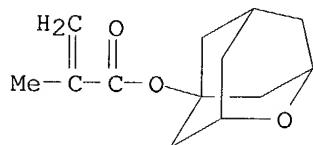
CRN 108-31-6
CMF C4 H2 O3



RN 624722-06-1 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran,
2,5-furandione and 2-oxatricyclo[3.3.1.13,7]dec-5-yl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

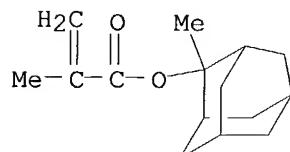
CM 1

CRN 624722-05-0
CMF C13 H18 O3



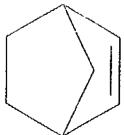
CM 2

CRN 177080-67-0
CMF C15 H22 O2



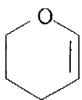
CM 3

CRN 498-66-8
CMF C7 H10



CM 4

CRN 110-87-2
CMF C5 H8 O



CM 5

CRN 108-31-6
CMF C4 H2 O3



L109 ANSWER 12 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2003:868611 HCPLUS

DN 139:371874

TI Positive-working photoresist composition for micro-lithography
IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 62 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003316004	A2	<u>20031106</u>	JP 2002-117801	20020419
US 2003219679	A1	<u>20031127</u>	US 2003-417209	<u>20030417</u>

PRAI JP 2002-117801 A 20020419

AB The title composition contains a resin increasing the solubility in an alkali developer by an acid and has repeating unit $[-C(R(1)-1)(R(2)-1)-C(R(3)-1)(-O-L1-Z)](R(1)-1-3 = H, F, Cl, Br, CN, alkyl; L1 = 2-valent connecting group; Z = acid-sensitive group)$. The composition shows the high sensitivity and provides pattern of good contrast for semiconductor device fabrication.

IT 622378-53-4P 622378-57-8P 622378-63-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos.-working photoresist composition for micro-lithog.)

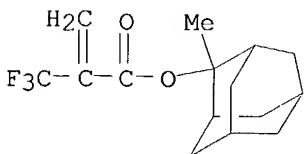
RN 622378-53-4 HCPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1,1-dimethylethyl 2-(ethenyl)oxyethyl carbonate and 1,1,2,3,3,3-hexafluoro-1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 188739-86-8

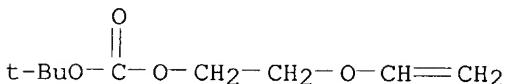
CMF C15 H19 F3 O2



CM 2

CRN 169950-91-8

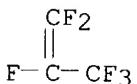
CMF C9 H16 O4



CM 3

CRN 116-15-4

CMF C3 F6



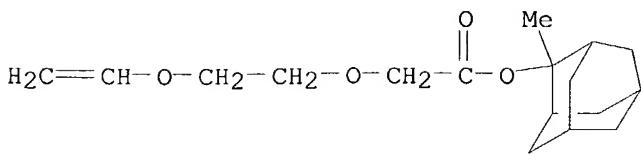
RN 622378-57-8 HCPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methylbicyclo[2.2.1]hept-2-yl ester, polymer with 2-methyltricyclo[3.3.1.13,7]dec-2-yl [2-(ethenyl)oxy]acetate and trifluoroethene (9CI) (CA INDEX NAME)

CM 1

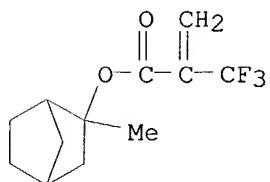
CRN 622378-54-5

CMF C17 H26 O4



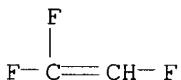
CM 2

CRN 430437-41-5
CMF C12 H15 F3 O2



CM 3

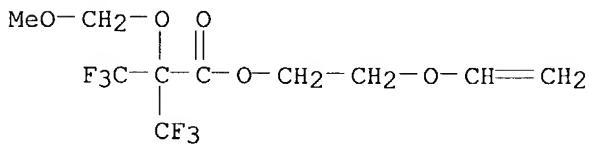
CRN 359-11-5
CMF C2 H F3



RN 622378-63-6 HCAPLUS
CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 2-(ethenyloxy)ethyl 3,3,3-trifluoro-2-(methoxymethoxy)-2-(trifluoromethyl)propanoate and tetrafluoroethylene (9CI)
(CA INDEX NAME)

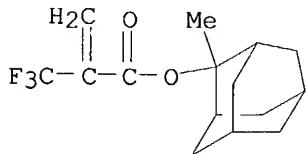
CM 1

CRN 622378-61-4
CMF C10 H12 F6 O5



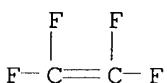
CM 2

CRN 188739-86-8
CMF C15 H19 F3 O2



CM 3

CRN 116-14-3
CMF C2 F4



L109 ANSWER 13 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2003:834248 HCPLUS

DN 139:330330

TI Chemically amplified photoresist compositions with high sensitivity and resolution

IN Kodama, Kunihiko

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 63 pp.

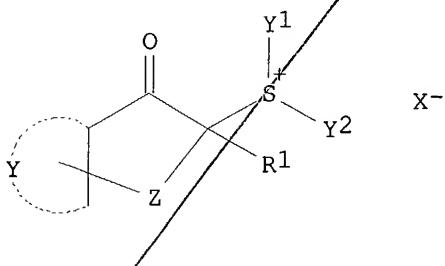
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003302754	A2	20031024		
PRAI	JP 2002-110738		20020412	JP 2002-110738	20020412
OS	MARPAT 139:330330				
GI					



I

AB The resist compns., useful for excimer laser development, contain photoacid generators I (R1 = H, alkyl, aryl, cyano; Y1, Y2 = alkyl, aryl,

aralkyl, heteroring; Y = condensed aromatic group, heteroring; Z = single bond, divalent linking group; X- = nonnucleophilic anion).

IT 615278-35-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sulfonium-based photoacid generators for excimer laser-sensitive photoresists with high sensitivity and resolution)

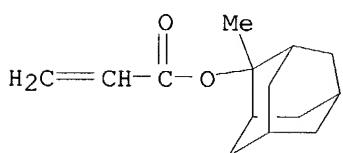
RN 615278-35-8 HCAPLUS

CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2-methoxy-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9

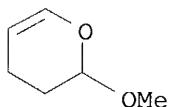
CMF C14 H20 O2



CM 2

CRN 4454-05-1

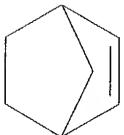
CMF C6 H10 O2



CM 3

CRN 498-66-8

CMF C7 H10



CM 4

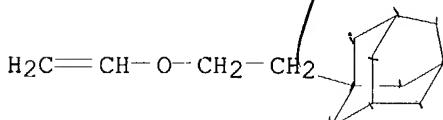
CRN 108-31-6

CMF C4 H2 O3



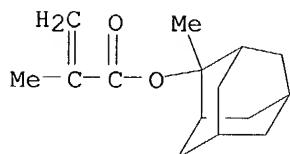
L109 ANSWER 14 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:818014 HCPLUS
 DN 139:314472
 TI Photosensitive polymers containing adamantylalkyl vinyl ether and resist compositions including the same
 IN Choi, Sang-jun
 PA S. Korea
 SO U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S. Ser. No. 764,150.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003194643	A1	20031016	US 2003-392931	20030321
	<u>US 6517990</u>	B1	20030211	US 2000-576053	<u>20000523</u>
	US 2001024763	A1	20010927	US 2001-764150	20010119
	<u>US 6673513</u>	B2	20040106		
	CN 1472231	A	20040204	CN 2003-149009	20030619
	JP 2004043807	A2	20040212	JP 2003-176840	20030620
PRAI	KR 2000-2489	A	20000119		
	KR 2000-20603	A	20000419		
	US 2000-198761P	P	20000421		
	US 2000-576053	A2	20000523		
	US 2001-764150	A2	20010119		
	KR 2002-34998	A	20020621		
AB	A photosensitive polymer useful in photoresists is characterized by contg. structural units derived from adamantylalkyl vinyl ethers. Photoresists containing the polymer are also claimed.				
IT	611206-47-4P 611206-48-5P 611206-51-0P RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photosensitive polymers containing adamantylalkyl vinyl ether for photoresists)				
RN	611206-47-4 HCPLUS				
CN	2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1-[2-(ethoxyethoxy)ethyl]tricyclo[3.3.1.13,7]decane and 2,5-furandione (9CI) (CA INDEX NAME)				
CM	1				
CRN	474745-04-5				
CMF	C14 H22 O				



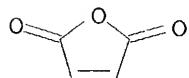
CM 2

CRN 177080-67-0
CMF C15 H22 O2



CM 3

CRN 108-31-6
CMF C4 H2 O3

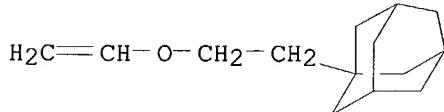


RN 611206-48-5 HCPLUS

CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1-[2-(ethenyl)ethyl]tricyclo[3.3.1.13,7]decane and 2,5-furandione (9CI)
(CA INDEX NAME)

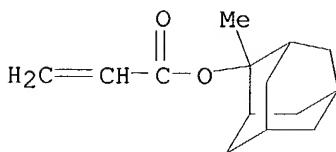
CM 1

CRN 474745-04-5
CMF C14 H22 O



CM 2

CRN 249562-06-9
CMF C14 H20 O2



CM 3

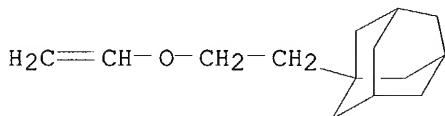
CRN 108-31-6
CMF C4 H2 O3



RN 611206-51-0 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 1-[2-(ethenyloxy)ethyl]tricyclo[3.3
.1.13,7]decane and 2,5-furandione (9CI) (CA INDEX NAME)

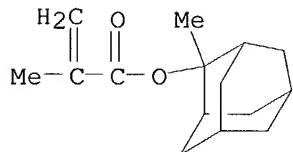
CM 1

CRN 474745-04-5
CMF C14 H22 O



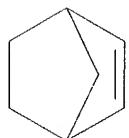
CM 2

CRN 177080-67-0
CMF C15 H22 O2



CM 3

CRN 498-66-8
CMF C7 H10



CM 4

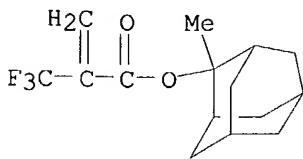
CRN 108-31-6
CMF C4 H2 O3

L109 ANSWER 15 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:811839 HCPLUS
 DN 139:330321
 TI Positive-working chemically amplified photoresist composition containing specific polymer
 IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 65 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003295442	A2	<u>20031015</u>	JP 2002-101462	20020403
PRAI	JP 2002-101462		<u>20020403</u>		
AB	The title composition contains an acid-sensitive polymer, wherein the polymer contains repeating unit [-C(R(I)-1)(R(I)-2)-C(R(I)-3)(R(I)-4)], [-C(R(II)-1)(R(II)-2)-C(R((II)-3))(R(II)-4)], and one of following repeating units: [-C(R(IIIa)-1)(R(IIIa)-2)-C(R(IIIa)-3)(-L-Va)]; [-C(R(IIIb)-1)(-L2-V2a)-C(R(IIIb)-3)(-L1-V1a)]; [-Q(Rb)1(-L3-V3a)] (R(I)-1-4 = H, F, Cl, Br, alkyl, etc.; R(II)-1-3 = H, alkyl; R(II)-4 = alkyl; L1-3 = 2-valent connecting group; Va, V1a, V3a = acid-sensitive group; V2a = H, -R, -OR, etc.; R = alkyl; Q = alicyclic hydrocarbon; Rb = H, alkyl, halo; 1 = 0-3 integer). The composition generates decreased amount of particles in the solution and provides photoresist of good transparency towards ≤160 nm light, high sensitivity, and good contrast.				
IT	612836-96-1P RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (resin in pos.-working chemical amplified photoresist composition)				
RN	612836-96-1 HCPLUS				
CN	2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with trifluoroethene and [2-(2,2,2-trifluoroethoxy)ethoxy]ethene (9CI) (CA INDEX NAME)				

CM 1

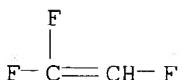
CRN 188739-86-8
CMF C15 H19 F3 O2



CM 2

CRN 18006-63-8
CMF C6 H9 F3 O2 $\text{F}_3\text{C}-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_2-\text{O}-\text{CH}=\text{CH}_2$

CM 3

CRN 359-11-5
CMF C2 H F3L109 ANSWER 16 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2003:735196 HCPLUS

DN 139:267983

TI Positive-working photoresist composition containing polymer with
fluoro-aliphatic group

IN Fujimori, Toru

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 88 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003262952	A2	<u>20030919</u>	JP 2002-65444	20020311
PRAI JP 2002-65444		20020311		

AB The composition contains (A) a compound generating an acid by irradiation of
actinic

ray, (B) a resin which decomp. by the action of an acid and whose solubility
in alkaline developer increases, and (C) a polymer with fluoro-aliphatic group
formed from a monomer $\text{CH}_2:\text{CR}_1\text{COX}(\text{CH}_2)_m(\text{CF}_2\text{CF}_2)_n\text{F}$ ($\text{R}_1 = \text{H}, \text{Me}; \text{X} = \text{O}, \text{S},$
 $\text{NR}_2; m = 1-6; n = 2-4; \text{R}_2 = \text{H}, \text{C}_1-\text{C}_4 \text{ alkyl}$). Developing defect is
prevented and the composition is useful for manufacture of integrated circuits,
semiconductor device, and wiring substrates.

IT 328061-11-6P 350992-58-4B

RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)

(pos. photoresist composition containing polymer with fluoro-aliphatic group)

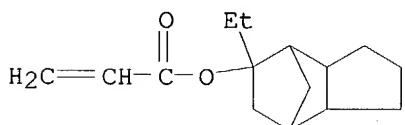
RN 328061-11-6 HCPLUS

CN 2-Propenoic acid, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester, polymer with 3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 307495-75-6

CMF C15 H22 O2



CM 2

CRN 110-87-2

CMF C5 H8 O



CM 3

CRN 108-31-6

CMF C4 H2 O3



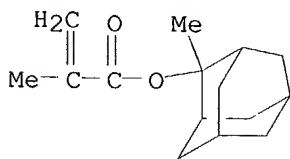
RN 350992-58-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

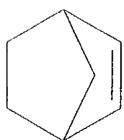
CRN 177080-67-0

CMF C15 H22 O2



CM 2

CRN 498-66-8
CMF C7 H10



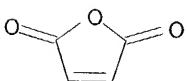
CM 3

CRN 110-87-2
CMF C5 H8 O



CM 4

CRN 108-31-6
CMF C4 H2 O3



L109 ANSWER 17 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2003:568821 HCPLUS
DN 139:140960
TI Chemically amplified positive photoresists with good profiles
IN Nakao, Hajime; Kodama, Kunihiro
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 82 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003207886 US 2003224285	A2 A1	20030725 20031204	JP 2002-3900 US 2003-338737	20020110 <u>20030109</u>

PRAI JP 2002-3899 A 20020110
 JP 2002-3900 A 20020110

AB The compns. comprise (A) compds. generating aromatic sulfonic acids containing F by irradiation, (B) alkanesulfonic acid onium salts and/or carboxylic acid onium salts having no F on α -position, and (C) resins having mono- or poly-alicyclic hydrocarbon structures, which increase their alkali solubility by acid decomposition

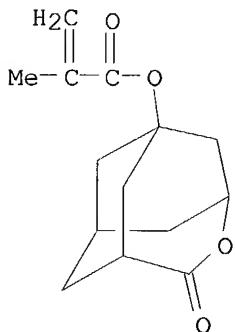
IT 398140-48-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (chemical amplified pos. photoresists with good profiles)

RN 398140-48-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

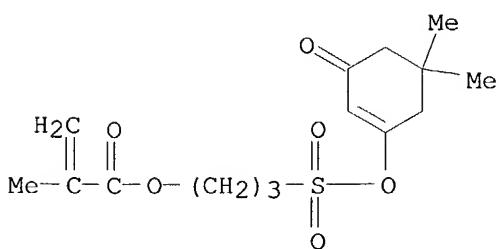
CM 1

CRN 348596-87-2
 CMF C14 H18 O4



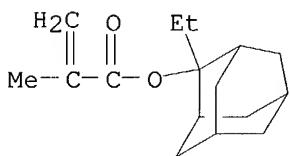
CM 2

CRN 289040-47-7
 CMF C15 H22 O6 S



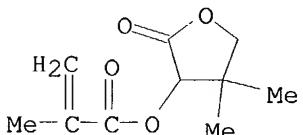
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 18 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:568820 HCAPLUS

DN 139:140959

TI Chemically amplified positive photoresist compositions with good developability and post-exposure-delay stability

IN Nakao, Hajime; Kawabe, Yasumasa; Fujimori, Toru

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 76 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003207885	A2	20030725	JP 2002-3899	20020110
	US 2003224285	A1	20031204	US 2003-338737	<u>20030109</u>
PRAI	JP 2002-3899	A	20020110		

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

JP 2002-3900 A 20020110

AB The compns. comprise (A) compds. generating aromatic sulfonic acids containing F by irradiation, (B) resins having mono- or poly-alicyclic hydrocarbon structures, which increase their alkali solubility by acid decomposition, and (C) compds. having ≥ 3 OH or substituted OH and ≥ 1 ring structures.

IT 398140-48-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chemical amplified pos. photoresists with good developability and post-exposure-delay stability)

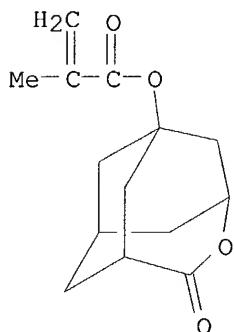
RN 398140-48-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yloxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 348596-87-2

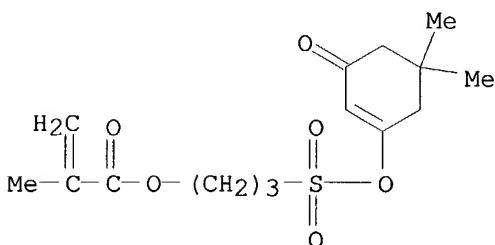
CMF C14 H18 O4



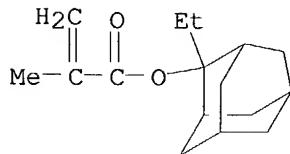
CM 2

CRN 289040-47-7

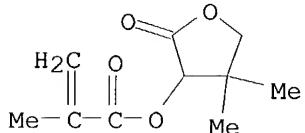
CMF C15 H22 O6 S



CM 3

CRN 209982-56-9
CMF C16 H24 O2

CM 4

CRN 156938-13-5
CMF C10 H14 O4L109 ANSWER 19 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2003:525434 HCPLUS

DN 139:108691

TI Polymers having acid-dissociable groups, chemically amplified photoresists with good vacuum UV transparency and etching resistance, and pattern formation using them

IN Hatakeyama, Jun; Harada, Yuji; Kawai, Yoshio; Sasako, Masaru; Endo, Masataka; Kishimura, Shinji; Maeda, Kazuhiko; Otani, Michitaka; Komoritani, Haruhiko

PA Shin-Etsu Chemical Industry Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Central Glass Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 35 pp.

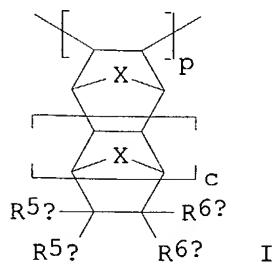
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003192735	A2	20030709	JP 2001-393354	20011226
PRAI	JP 2001-393354		20011226		
GI					



AB The invention relates to polymers having repeating units of $(CR_1R_2CR_3CO_2R_4)_m$ ($R_1, R_2 = H, F, C_{1-20}$ -alkyl, fluoroalkyl; $R_3 = F, C_{1-20}$ -alkyl, fluoroalkyl; $R_4 = \text{acid-unstabilizable group}; 0 \leq m < 1$), $(CR_1R_2CR_3OH)_n$ ($R_{1-3} = \text{same as above}; 0 < n < 1$), and I [$R_{5a}, R_{5b}, R_{6a}, R_{6b} = H, OH, C_{1-20}$ -alkyl, fluoroalkyl, $(CH_2)_dCO_2R_7, (CH_2)_dCR_8_2OR_7$; $R_7 = \text{acid-unstabilizable group, adhesive group, } H, C_{1-20}\text{-alkyl, fluoroalkyl, etc.}; R_8 = R_1, R_2; 0 \leq p < 1; 0 < m + n + p \leq 1; m = p \neq 0; c = 0, 1; d = 0-6; X = \text{methylene, ethylene, O, S}$]. The photoresists are patterned by F2 laser, Ar2 laser, or soft X ray.

IT 557112-92-2P

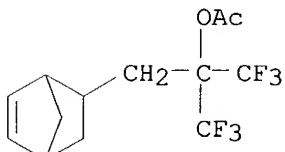
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chemical amplified photoresists with good vacuum UV transparency and etching resistance)

RN 557112-92-2 HCPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1-(bicyclo[2.2.1]hept-5-en-2-ylmethyl)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl acetate and 1-(trifluoromethyl)ethenyl acetate (9CI) (CA INDEX NAME)

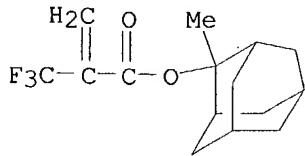
CM 1

CRN 370866-40-3
CMF C13 H14 F6 O2

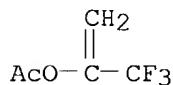


CM 2

CRN 188739-86-8
CMF C15 H19 F3 O2



CM 3

CRN 2247-91-8
CMF C5 H5 F3 O2

L109 ANSWER 20 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2003:432993 HCPLUS

DN 139:28625

TI Positive photoresist compositions with suppressed edge roughness

IN Fujimori, Toru; Kawamura, Koichi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 89 pp.

CODEN: JKXXAF

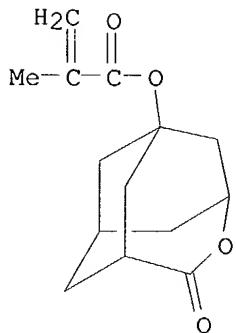
DT Patent

LA Japanese

FAN.CNT 1

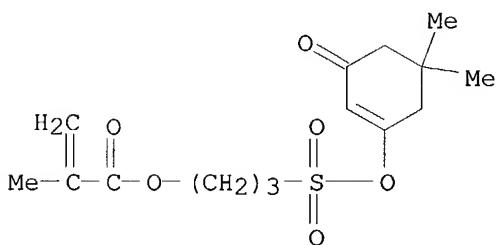
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003162061	A2	20030606	JP 2002-219789	20020729
PRAI	JP 2001-279708	A	20010914		
OS	MARPAT 139:28625				
AB	The compns., useful for far UV radiation (e.g. excimer laser), comprise (A) alicyclic group-containing resins that increase their alkali-solubility in the presence of acids, (B) photoacid generators (PAG), and (C) compds. having sulfonimide structures in a mol. R1(SO ₂ R ₂)SO ₂ R ₃ (R ₁ = H, halo, alkyl, cycloalkyl, aryl, aralkyl, heterocyclic group; R ₂ , R ₃ = alkyl, cycloalkyl, aryl, aralkyl, heterocyclic group).				
IT	398140-48-2P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (pos. photoresists containing sulfonimides with suppressed edge roughness)				
RN	398140-48-2	HCPLUS			
CN	2-Propenoic acid, 2-methyl-, 3-[[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				
	CM 1				

CRN 348596-87-2
CMF C14 H18 O4



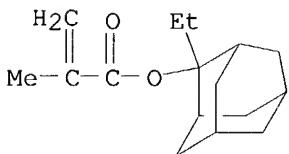
CM 2

CRN 289040-47-7
CMF C15 H22 O6 S



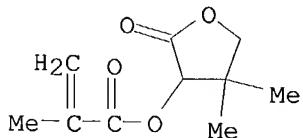
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 21 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:422227 HCAPLUS

DN 139:14960

TI Macromolecules with high etching resistance, their positive photoresist compositions, and semiconductor device fabrication by using the same

IN Tsutsumi, Kiyoharu

PA Daicel Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003160612	A2	<u>20030603</u>	JP 2001-359905	20011126
PRAI	JP 2001-359905		20011126		

AB The pos. photoresist compns. contain (A) macromols. prepared by homopolymn. of ≥ 1 vinyl ether compds. or copolymn. of ≥ 1 vinyl ether compds. and other polymerizable compds. and (B) photoacid generators. Preferably, ≥ 1 of the vinyl ether compds. comprise those having alicyclic hydrocarbon-based structures, more preferably, cyclohexane ring, adamantane ring, norbornane ring, isobornane ring, tricyclodecane ring, or tetracyclododecane ring. The alicyclic hydrocarbon-based structures may be substituted with polar functional groups, preferably, OH, oxo group, CO2H, alkoxy carbonyl group, or lactone ring-based groups.

IT 535931-34-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos. photoresist compns containing etching-resistant vinyl ether-based photopolymers for semiconductor device fabrication)

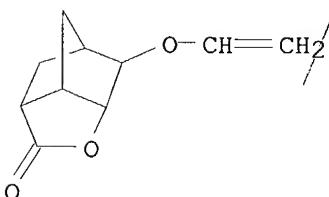
RN 535931-34-1 HCAPLUS

CN 2-Propenoic acid, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 6-(ethenyl)hexahydro-3,5-methano-2H-cyclopenta[b]furan-2-one, 2,5-furandione and 1-methyl-1-tricyclo[3.3.1.13,7]dec-1-yethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

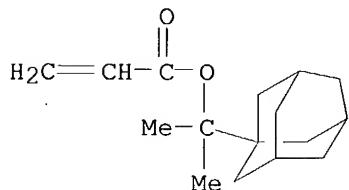
CRN 500541-94-6

CMF C10 H12 O3



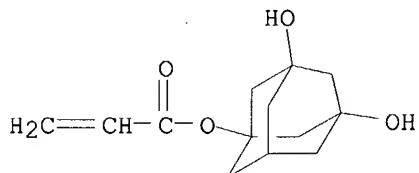
CM 2

CRN 300833-10-7
CMF C16 H24 O2



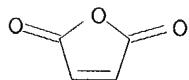
CM 3

CRN 216581-85-0
CMF C13 H18 O4



CM 4

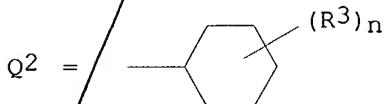
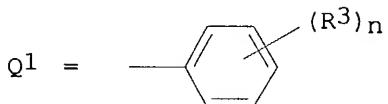
CRN 108-31-6
CMF C4 H2 O3



L109 ANSWER 22 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2003:367024 HCPLUS
DN 138:376412
TI Positive-working resist composition containing vinyl ether compound
IN Nishiyama, Fumiaki; Fujimori, Toru
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
----- ----- ----- ----- -----

PI JP 2003140348 A2 20030514
 PRAI JP 2001-339364 20011105
 GI

JP 2001-339364 20011105



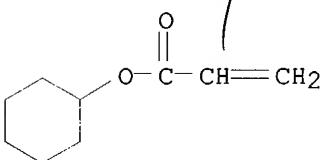
AB The composition contains (A) a polymer with a structural unit having a group $\text{OCHMeO}(\text{CR}_1\text{R}_2)_m\text{Z}_1$ [$\text{R}_1-2 = \text{H}$, (un)substituted alkyl; $m = 1-20$; $\text{Z}_1 = Q^1, Q^2$; $\text{R}^3 = (\text{un})\text{substituted alkyl, aryl, aralkyl}; n = 0-5$] and/or (B) a polymer with a structural unit having a group OCHMeOR_4 ($\text{R}_4 = \text{alkyl}$) in which the solubility of A and B in alkaline developer increases by the action of an acid, (C) a compound generating an acid by the action of actinic ray or radiation, and (D) a vinyl ether compound $\text{H}_2\text{C:CHOXYLP}$ [$X = (\text{un})\text{substituted alkylene}$; Y = divalent linkage; P = (un)substituted heterocycle; l = 0, 1]. The fluctuation of line width caused by the variation of the resist thickness due to the substrate unevenness is effectively prevented.

IT 521809-63-2DP, ethers with Et vinyl ether
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photoresist composition containing polymer with ether protective group, acid generator, and vinyl ether compound)

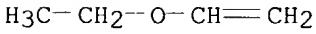
RN 521809-63-2 HCPLUS

CN 2-Propenoic acid, cyclohexyl ester, polymer with ethoxyethene (9CI) (CA INDEX NAME)

CM 1

CRN 3066-71-5
CMF C9 H14 O2

CM 2

CRN 109-92-2
CMF C4 H8 O

L109 ANSWER 23 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2003:317557 HCPLUS

DN 138:346481

TI Positive-working chemically amplified photoresist composition for far-UV exposure

IN Kodama, Kunihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 75 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003122011	A2	20030425	JP 2001-320379	20011018
PRAI	JP 2001-320379		20011018		

AB The title composition contains an acid generator, a resin increasing the solubility

in an alkali developer with an acid, and a basic or acid compound containing N, wherein the resin has an alicyclic group with a ring or multiple rings. The composition provides the wide exposure latitude and good pattern characteristics disregarding pattern d.

IT 398140-48-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin in pos.-working chemical amplified photoresist composition)

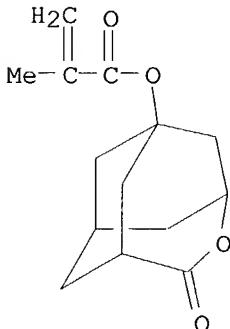
RN 398140-48-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonylpropyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 348596-87-2

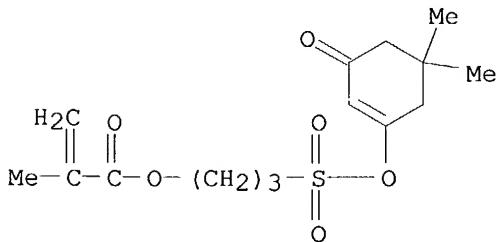
CMF C14 H18 O4



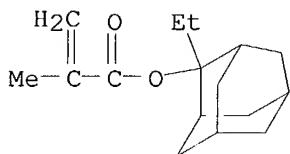
CM 2

CRN 289040-47-7

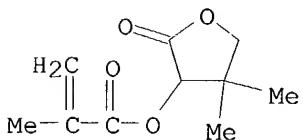
CMF C15 H22 O6 S



CM 3

CRN 209982-56-9
CMF C16 H24 O2

CM 4

CRN 156938-13-5
CMF C10 H14 O4

L109 ANSWER 24 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2003:282248 HCPLUS

DN 138:294918

TI Positive photosensitive composition

IN Kodama, Kunihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 85 pp.

CODEN: EPXXDW

DT Patent

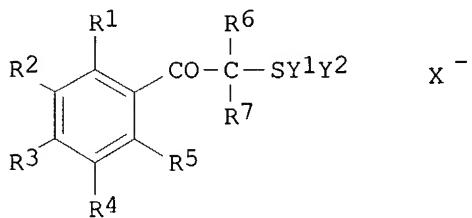
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1300727	A2	20030409	EP 2002-22234	20021002
	EP 1300727	A3	20031008		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

JP 2003114522	A2	20030418	JP 2001-307537	20011003
US 2003148206	A1	20030807	US 2002-261655	20021002
PRAI JP 2001-307537	A	20011003		
OS MARPAT 138:294918				
GI				



AB A pos. photosensitive composition containing (A) an acid generator capable of generating an acid by irradiation with actinic ray or radiation and having a structure I (R1-5 = H, nitro group, halogen, alkyl, alkoxy, etc.; at least two of R1-5 may combine with each other to form a cyclic structure; R6,7 = H, cyano group, alkyl, aryl; Y1, 2 = alkyl, alkenyl; X- = non-nucleophilic anion) and (B) a resin having a monocyclic or polycyclic alicyclic hydrocarbon structure and being decomposed by the action of an acid to increase solubility in an alkali developer. The present invention relates to a pos. photosensitive composition used in a manufacturing process of semiconductors, such as ICs, in a process of producing circuit boards for liquid crystal display and thermal head, and in other photofabrication processes. The invention is concerned with a pos. photosensitive composition suitable for using far UV radiation having a wavelength of not longer than 250 nm or the like as an exposure light source.

IT 398140-48-2P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)

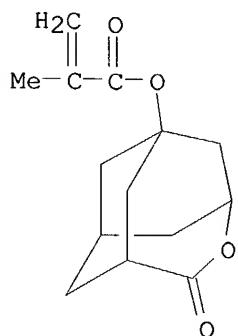
(side-chain type resin for pos. photosensitive composition for photoresist)

RN 398140-48-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

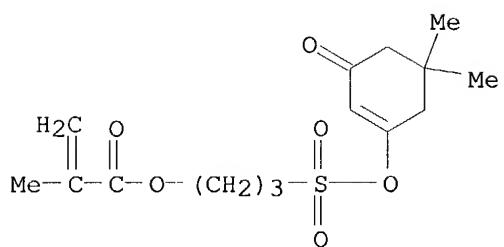
CM 1

CRN 348596-87-2
 CMF C14 H18 O4



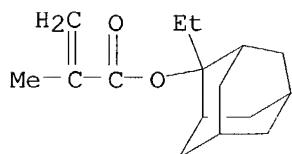
CM 2

CRN 289040-47-7
CMF C15 H22 O6 S



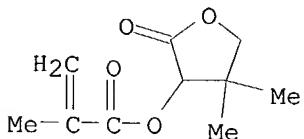
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 25 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:257922 HCAPLUS

DN 138:278398

TI Chemically amplified positive photoresists and polymers having hydroxyalkyl vinyl ether units therefor

IN Choi, Sang-Joon

PA Samsung Electronics Co., Ltd., S. Korea

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE
PI	JP 2003096136 DE 10238038 US 2003091928	A2 A1 A1	20030403 20030522 20030515
PRAT	KR 2001-51591	A	20010825

AB The polymers consist of (A) unit $[CH_2CHO[(CH_2)_xCR_1R_2OH]]$ [$x = 3-6$; R1, R2 = C1-20 alkyl, C1-10 (per)fluoroalkyl] and (B) acid-labile C4-20 hydrocarbonyl-substituted unit of (meth)acrylate derivs., fumarate derivs., 4-hydroxystyrene derivs., acrylonitrile derivs., and/or norbornene derivs. at A/B (10-90):(10-90) (mol%) and satisfy M_w 3000-50,000. The photoresists contain the polymers and 1.0-15% (based on the polymer weight) PAG (photoacid generators). The photoresists show good substrate adhesion and improved annealing effects on exclusion of dynamic volume, and are useful for submicron photolithoq.

IT 503445-55-4P 503445-56-5P 503445-57-6P

RL: **IMF** (Industrial manufacture); TEM (Technical or engineered material use); **PREP** (Preparation); **USES** (Uses)
(chemical amplified pos. photoresists containing acid-labile polymers having flexible and hydrophilic backbone)

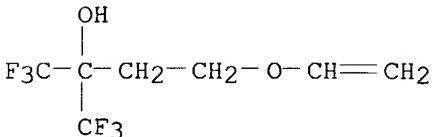
RN 503445-55-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 4-(ethoxy)-1,1-trifluoro-2-(trifluoromethyl)-2-butanol
(9CI) (CA INDEX NAME)

CM 1

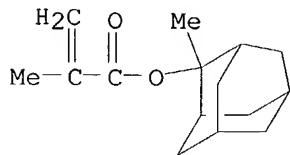
CRN 503445-54-3

CMF C7 H8 F6 O2



CM 2

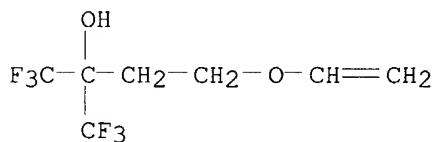
CRN 177080-67-0
CMF C15 H22 O2



RN 503445-56-5 HCPLUS
CN 2-Propenoic acid, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester,
polymer with 4-(ethenyloxy)-1,1,1-trifluoro-2-(trifluoromethyl)-2-butanol
(9CI) (CA INDEX NAME)

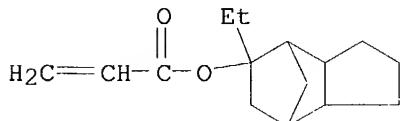
CM 1

CRN 503445-54-3
CMF C7 H8 F6 O2



CM 2

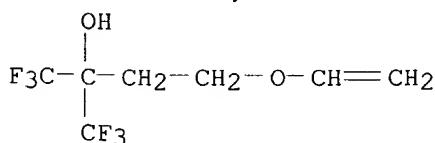
CRN 307495-75-6
CMF C15 H22 O2



RN 503445-57-6 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 4-(ethenyloxy)-1,1,1-trifluoro-2-(trifluoromethyl)-2-butanol
and 2,5-furandione (9CI) (CA INDEX NAME)

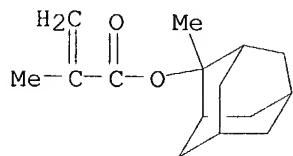
CM 1

CRN 503445-54-3
CMF C7 H8 F6 O2



CM 2

CRN 177080-67-0
CMF C15 H22 O2



CM 3

CRN 108-31-6
CMF C4 H2 O3



L109 ANSWER 26 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2003:217340 HCPLUS

DN 138:262684

TI Chemically amplified photoresist composition containing specific resin and method for pattern formation using the same

IN Hatakeyama, Jun; Takeda, Takanobu; Watanabe, Osamu; Hasegawa, Koji

PA Shin-Etsu Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 32 pp.

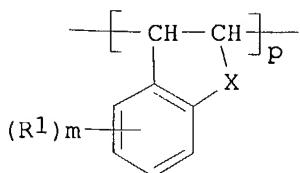
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003084440	A2	20030319	JP 2002-22638	20020131
PRAI JP 2001-204623	A	20010705		



AB The title composition contains a resin and a photoacid generator, wherein the resin has repeating unit I(R1 = H, OH, C1-4 alkyl, C1-20 alkoxy, halo; m = 0, 1-4 integer; X = O, S, -NR-; R = H, C1-4 alkyl, OH; p = pos. number).

The composition provides the photoresists of high sensitivity and high resolution

and is suitable for manufacturing super LSI.

IT 502183-74-6DP, hydrolyzed 502183-77-9DP, hydrolyzed

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photoresist composition containing specific resin and method for pattern formation using the same)

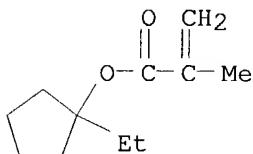
RN 502183-74-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with benzofuran and ethenylphenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1

CMF C11 H18 O2



CM 2

CRN 59858-52-5

CMF C10 H10 O2

CCI IDS

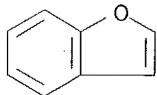


D1-CH=CH₂

D1-O-Ac

CM 3

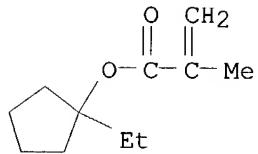
CRN 271-89-6
CMF C8 H6 O



RN 502183-77-9 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with benzofuran, ethenylphenyl acetate and 1H-indene (9CI) (CA INDEX NAME)

CM 1

CRN 266308-58-1
CMF C11 H18 O2



CM 2

CRN 59858-52-5
CMF C10 H10 O2
CCI IDS

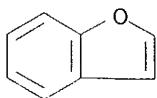


D1—CH=CH₂

D1—O—Ac

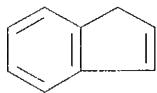
CM 3

CRN 271-89-6
CMF C8 H6 O



CM 4

CRN 95-13-6
CMF C9 H8



L109 ANSWER 27 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2003:165405 HCPLUS

DN 138:229246

TI Positive-working photoresist composition and method of forming thermal flow pattern therefrom

IN Fujimori, Toru

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 90 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003066626	A2	20030305	JP 2001-261467	20010830
PRAI	JP 2001-261467		20010830		

AB The pos.-working photoresist composition comprises (a) a photoacid and (b) a resin which has a monocyclic or polycyclic alicyclic hydrocarbon structure, decomp. upon contact with an acid, and increases its solubility in an alkaline developer. The composition further comprises (c) a basic compound and

(d) an organic solvent. The composition further contains (e) a silicone-based or F-based surfactant. The composition further contains a a low mol. weight compound

which changes the glass transition temperature of the resist film.

IT 398140-48-2P

RL: EPR (Engineering process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

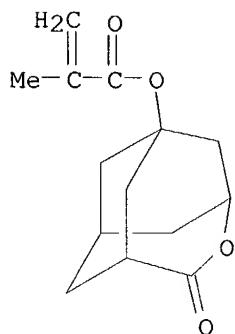
(pos.-working photoresist composition from alicyclic polymer)

RN 398140-48-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[[5,5-dimethyl-3-oxo-1-cyclohexen-1-yloxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

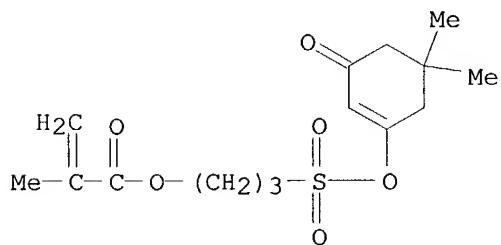
CM 1

CRN 348596-87-2
CMF C14 H18 O4



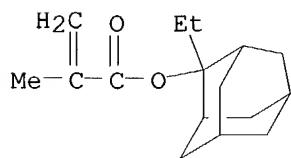
CM 2

CRN 289040-47-7
CMF C15 H22 O6 S



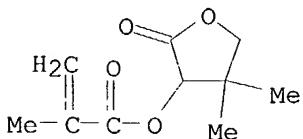
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 28 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:152363 HCAPLUS

DN 138:212783

TI Positive-working photoresist composition containing specific acid generator

IN Kodama, Kunihiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 67 pp.

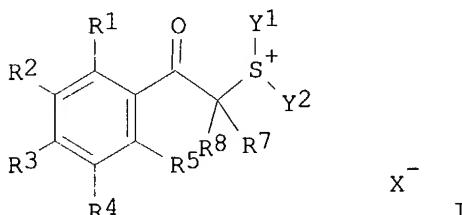
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003057816	A2	20030228	JP 2001-250452	20010821
PRAI	JP 2001-250452		20010821		
OS	MARPAT 138:212783				
GI					



AB The composition contains a radiation- or light-sensitive acid generator, a resin which increases the solubility in an alkali solution by an acid and has mono- or poly-cyclic hydrocarbon structure, wherein the acid generator has structure I (R1-5 = H, nitro, halo, alkyl, etc.; R6-7 = H, cyano, alkyl, aryl; Y1-2 = alkyl, aryl, aralkyl, etc.; X- = non-nucleophilic anion). The composition shows the good storageability and the high sensitivity toward light of ≤ 250 nm and provides the resist of the improved pattern profile.

IT 398140-48-2P

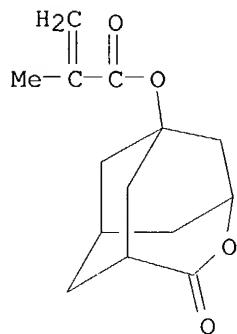
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin; pos.-working photoresist composition)

RN 398140-48-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

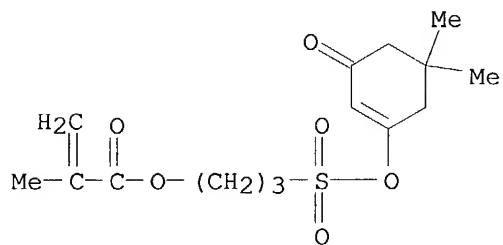
CM 1

CRN 348596-87-2
CMF C14 H18 O4



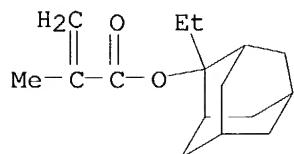
CM 2

CRN 289040-47-7
CMF C15 H22 O6 S



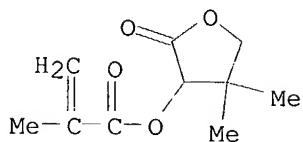
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 29 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2003:35187 HCPLUS

DN 138:98199

TI Positive-working vacuum UV-sensitive photoresist material composition containing specific resin

IN Kanna, Shinichi; Mizutani, Kazuyoshi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 39 pp.

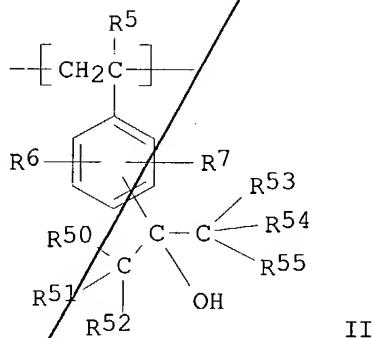
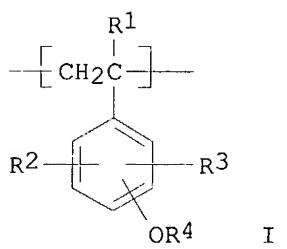
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003015298	A2	20030115	JP 2001-202241	20010703
PRAI	JP 2001-202241		20010703		
GI					



AB The title composition contains a resin increasing solubility toward an alkali solution

by an acid, a photoacid generator, and a solvent, wherein the resin contains repeating unit I, II, and $[-\text{CH}(\text{R17a})-\text{C}(\text{R17})(\text{COOR18})-]$ ($\text{R1,5,17a,17} = \text{H, halo, cyano, alkyl}$; $\text{R2,3,6,7} = \text{H, halo, cyano, hydroxyl, etc.}$; $\text{R50-55} = \text{H, F, alkyl}$; $\text{R4} = -\text{C}(\text{R11})(\text{R12})(\text{R13}), -\text{C}(\text{R14})(\text{R15})(-\text{O}-\text{R16})$; $\text{R18} = -\text{C}(\text{R18d})(\text{R18e})(\text{R18f}), -\text{C}(\text{R18d})(\text{R18e})-\text{O}-(-\text{R18g})$; $\text{R11-13} = \text{alkyl, cycloalkyl, alkenyl, aralkyl, aryl}$; $\text{R14-15} = \text{H, alkyl}$; $\text{R16} = \text{alkyl, cycloalkyl, aralkyl, aryl}$). The composition provides the good transparency towards vacuum UV and provides the good solubility contrast towards developers.

IT 485390-67-8P

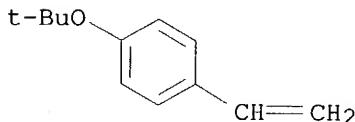
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin; pos.-working vacuum UV-sensitive photoresist material composition containing specific resin)

RN 485390-67-8 HCAPLJS

CN 2-Propenoic acid, 2-methyl-, tetrahydro-2H-pyran-2-yl ester, polymer with 1-(1,1-dimethylethoxy)-4-ethenylbenzene, 4-ethenyl- α,α -bis(trifluoromethyl)benzenemethanol and trifluoro(pentafluoroethoxy)ethene (9CI) (CA INDEX NAME)

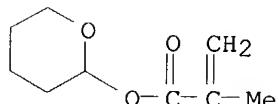
CM 1

CRN 95418-58-9
CMF C12 H16 O



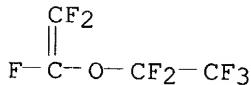
CM 2

CRN 52858-59-0
CMF C9 H14 O3



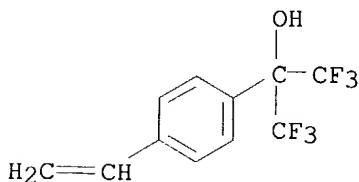
CM 3

CRN 10493-43-3
CMF C4 F8 O



CM 4

CRN 2386-82-5
CMF C11 H8 F6 O



L109 ANSWER 30 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:904448 HCAPLUS

DN 138:9656

TI Positive photosensitive composition

IN Kodama, Kunihiro; Sato, Kenichiro; Fujimori, Toru

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 145 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1260864	A1	20021127	EP 2002-11516	20020522
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002351077	A2	20021204	JP 2001-152587	20010522
	JP 2002351079	A2	20021204	JP 2001-155897	20010524
	JP 2002351063	A2	20021204	JP 2001-159060	20010528
	US 2003077540	A1	20030424	US 2002-150967	<u>20020521</u>

PRAI JP 2001-152587 A 20010522

JP 2001-155897 A 20010524

JP 2001-159060 A 20010528

OS MARPAT 138:9656

AB A pos. photosensitive composition comprises (A) a specific acid generator that generates an acid upon irradiation of an actinic ray or radiation, and (B) a resin that has a monocyclic or polycyclic alicyclic hydrocarbon structure and is decomposed by the action of an acid to increase solubility in an alkali developing solution

IT 398140-48-2P

RL: PRP (Properties); SPN (Synthetic preparation); TEM
(Technical or engineered material use); PREP (Preparation); USES
(Uses)

(resin; pos photoresist composition containing)

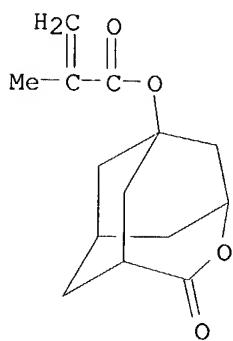
RN 398140-48-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonylpropyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (SCI) (CA INDEX NAME)

CM 1

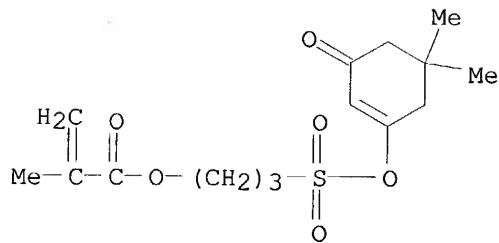
CRN 348596-87-2

CMF C14 H18 O4



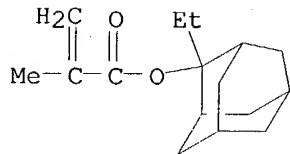
CM 2

CRN 289040-47-7
CMF C15 H22 O6 S



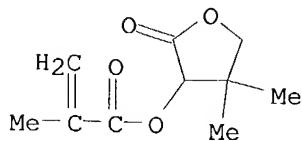
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4

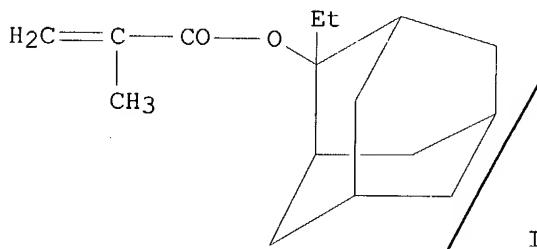


RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L109 ANSWER 31 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:769664 HCAPLUS
 DN 137:302214
 TI Polymer photoresists and method of patterning
 IN Harada, Yuji; Hatakeyama, Jun; Watanabe, Atsushi; Kawai, Yoshio; Sasako, Masaru; Endo, Masataka; Kishimura, Shinji; Otani, Michitaka; Miyazawa, Satoru; Tsutsumi, Kentaro; Maeda, Kazuhiko
 PA Shin-Etsu Chemical Industry Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Central Glass Co., Ltd.
 SO Jpn. Kokai Tokkyo Koho, 22 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002293840	A2	200209	JP 2001-98228	20010330
PRAI JP 2001-98228		20010330		

GI



I

AB The polymers, showing high sensitivity at ≤ 200 nm (especially at ≤ 170 nm), high transparency, and high plasma etching resistance, have Mw 1000-500,000 and repeating units of [CR1R2CR3(CO2R4)]a[CR5R6CR7(CO2R8)]b[CR9R10CR11(OR12)]c [R1, R2, R5-R7, R9, R11 = H, F, linear, branched or cyclic C1-20 alkyl, fluorinated alkyl; R3 = F, linear, branched or cyclic C1-20 alkyl, fluorinated alkyl; R4, R8 = acid-unstable group, adhesive group, H, linear, branched or cyclic C1-20 alkyl, fluorinated alkyl; R10, R12 = H, (hetero atom-containing) hydrocarbyl, fluorinated hydrocarbyl; R10 and R12 also may be hydrocarbylene and link together to form a ring; $0 < a < 1$; $0 \leq b < 1$; $0 < c < 1$; $0 < a + b + c \leq 1$. Thus, a 32:27:41 copolymer of H₂C:C(CF₃)CO₂CH₂CF₃, I, and 3,4-dihydropyran was prepared and showed light transmittance 99, 99, and 58%, at 248, 193, and 157 nm, resp.

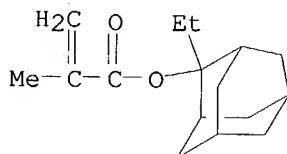
IT 468102-86-5P 468102-87-6P 468102-89-8P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM

(Technical or engineered material use); PREP (Preparation); USES
(Uses)

RN 468102-86-5 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 3,4-dihydro-2H-pyran and 2,2,2-trifluoroethyl
2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

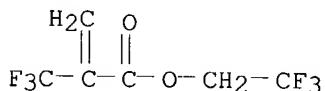
CM 1

CRN 209982-56-9
CMF C16 H24 O2



CM 2

CRN 91520-39-7
CMF C6 H4 F6 O2



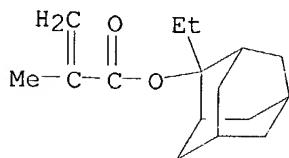
CM 3

CRN 110-87-2
CMF C5 H8 O



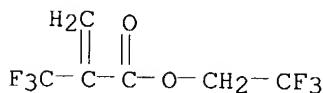
CM 1

CRN 209982-56-9
CMF C16 H24 O2



CM 2

CRN 91520-39-7
CMF C6 H4 F6 O2



CM 3

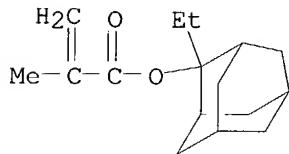
CRN 109-53-5
CMF C6 H12 O

i-BuO-CH=CH₂

RN 468102-89-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 3,4-dihydro-2H-pyran and 1,1-dimethylethyl
2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

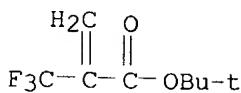
CM 1

CRN 209982-56-9
CMF C16 H24 O2



CM 2

CRN 105935-24-8
CMF C8 H11 F3 O2



CM 3

CRN 110-87-2
CMF C5 H8 O

L109 ANSWER 32 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:676318 HCPLUS
 DN 137:224113
 TI Synthesis of novel polymers for UV photoresist compositions
 IN Barclay, George G.; Caporale, Stefan J.; Kavanagh, Robert J.; Pugliano, Nicholas

PA Shipley Company, LLC, USA
 SO PCT Int. Appl., 63 pp.
 CODEN: PIXXD2

DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002069040	A1	20020906	WO 2002-US5609	20020226
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003027075	A1	20030206	US 2002-83675	20020226

PRAI US 2001-271401P P 20010227

AB The invention provides new polymers and photoresists that comprises the polymers. The invention describes the preparation of the polymers and monomers based on maleic anhydride, norbornene and methacrylate derivs. Photoresists containing a polymer of the invention can exhibit significantly improved lithog. properties upon exposure to short wavelength, particularly sub-200-300 nm wavelengths.

IT 350992-58-4P 455640-58-1P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (novel polymers for UV photoresist compns.)

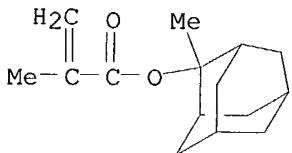
RN 350992-58-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran and

2,5-furandione (9CI) (CA INDEX NAME)

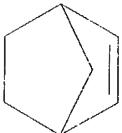
CM 1

CRN 177080-67-0
CMF C15 H22 O2



CM 2

CRN 498-66-8
CMF C7 H10



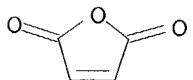
CM 3

CRN 110-87-2
CMF C5 H8 O



CM 4

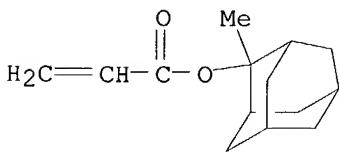
CRN 108-31-6
CMF C4 H2 O3



RN 455640-58-1 HCPLUS
CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

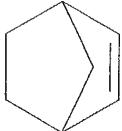
CM 1

CRN 249562-06-9
CMF C14 H20 O2



CM 2

CRN 498-66-8
CMF C7 H10



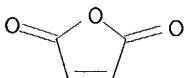
CM 3

CRN 110-87-2
CMF C5 H8 O



CM 4

CRN 108-31-6
CMF C4 H2 O3



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L109 ANSWER 33 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2002:676316 HCPLUS

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

DN 137:224111
 TI Novel polymers for UV photoresist compositions
 IN Barclay, George G.; Caporale, Stefan J.
 PA Shipley Company, L.L.C., USA
 SO PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002069038	A2	20020906	WO 2002-US8153	20020225
	WO 2002069038	A3	20030403		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2003031949	A1	20030213	US 2002-82770	20020225
	US 2001-271402P	P	20010225		

AB The invention includes polymers that contain a polymers of the invention contain one or more (1) carbonate units and/or (2) a lactone provided by a monomer having a ring oxygen adjacent to the monomer vinyl group. The invention also provides photoresists that contain such polymers, particularly for sharp imaging at short wavelengths such as sub-200 nm.

IT 455946-70-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (novel polymers for UV photoresist compns.)

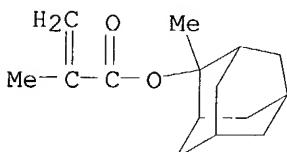
RN 455946-70-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 1,3-dioxol-2-one and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

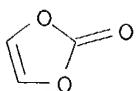
CMF C15 H2 O2



CM 2

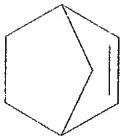
CRN 872-36-6

CMF C3 H2 O3



CM 3

CRN 498-66-8
CMF C7 H10



CM 4

CRN 108-31-6
CMF C4 H2 O3



L109 ANSWER 34 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2002:237124 HCPLUS

DN 136:286589

TI Positive-working chemically amplified photoresist composition containing specific acid-sensitive resin and specific nitrogen-containing compound for semiconductor device fabrication

IN Fujimori, Toru; Kawabe, Yasumasa; Nakao, Hajime

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 92 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002090987	A2	20020327	JP 2001-209543	20010710
	US 2002155383	A1	20021024	US 2001-902793	20010712
	US 6692897	B2	20040217		

PRAI JP 2000-211642 A 20000712

OS MARPAT 136:286589

AB The title composition contains a resin, which has an alicyclic hydrocarbon group, increasing the solubility rate in an alkali by reacting with an acid, a photo-acid generator and a nitrogen-containing compound, wherein the nitrogen-containing compound has group -C(=O)-N(OH)-. The composition provides the

improved line-edge roughness on the photoresist.

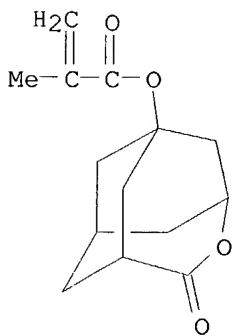
IT 398140-48-2P

RL: **SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**
(resin in pos.-working photoresist composition)

RN 398140-48-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 3-[[[5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

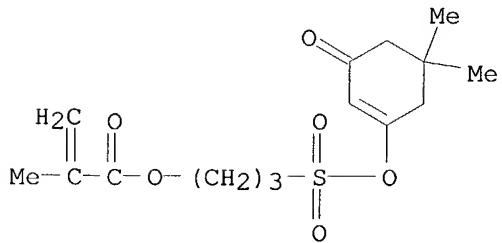
CM 1

CRN 348596-87-2
CMF C14 H18 O4



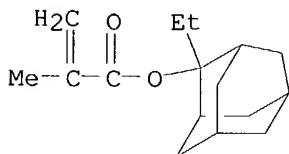
CM 2

CRN 289040-47-7
CMF C15 H22 O6 S



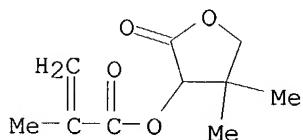
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 35 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2002:219917 HCPLUS

DN 136:254554

TI Chemically amplified positive photoresist compositions having lactone-containing polymers with good dry etching resistance

IN Yoon, Kwang Sup; Jung, Dong Won; Lee, Si Hyeung; Kim, Hyun Woo; Lee, Sook; Woo, Sang Gyun; Choi, Sang Joon

PA Samsung Electronics Co., Ltd., S. Korea

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

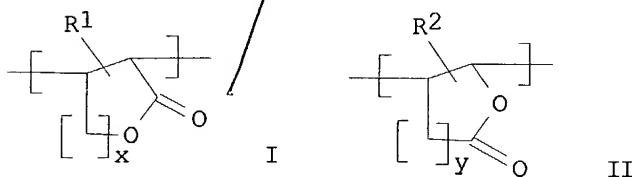
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002082441	A2	20020322	JP 2001-211147	20010711
	US 2002042016	A1	20020411	US 2001-901569	20010711
	US 6537727	B2	20030325		
	US 2004018442	A1	20040129	US 2003-349917	20030124
PRAI	KR 2000-39562	A	20000711		
	KR 2000-75485	A	20001212		
	US 2001-901569	A3	20010711		

GI



AB The compns. contain (A) photosensitive polymers comprising at least one

repeating unit selected from I and II (R1, R2 = H, alkyl, hydroxyalkyl, alkoxy, carbonyl, ester; x, y = 1-6) and at least one other repeating unit selected from (meth)acrylates, maleic anhydride, and norbornene and (B) photoacid generators. The photosensitive polymers may alternatively contain at least one repeating unit selected from III and IV (v, w = 1-6) instead of I or II. The photoresist compns. are useful for high-resolution lithog. using ArF excimer laser. Reduction of manufacturing cost and good adhesion

to primer layers are achieved with this invention.

IT 403986-97-0P 403986-98-1P 403986-99-2P
403987-01-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chemical amplified ArF-laser photoresist compns. having lactone-containing polymers with good dry etching resistance)

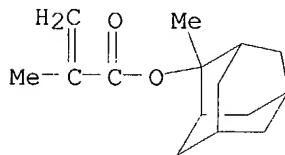
RN 403986-97-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 2,5-furandione and 5-methyl-2(3H)-furanone (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

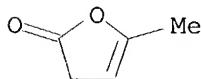
CMF C15 H22 O2



CM 2

CRN 591-12-8

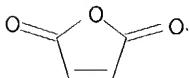
CMF C5 H6 O2



CM 3

CRN 108-31-6

CMF C4 H2 O3

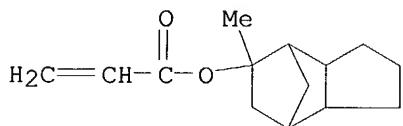


RN 403986-98-1 HCPLUS

CN 2-Propenoic acid, octahydro-5-methyl-4,7-methano-1H-inden-5-yl ester,
polymer with 2,5-furandione and 5-methyl-2(3H)-furanone (9CI) (CA INDEX
NAME)

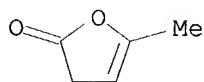
CM 1

CRN 348089-10-1
CMF C14 H20 O2



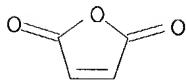
CM 2

CRN 591-12-8
CMF C5 H6 O2



CM 3

CRN 108-31-6
CMF C4 H2 O3

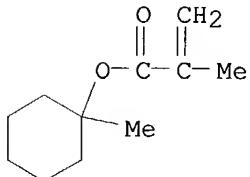


RN 403986-99-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methylcyclohexyl ester, polymer with
2,5-furandione and 5-methyl-2(3H)-furanone (9CI) (CA INDEX NAME)

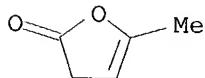
CM 1

CRN 76392-14-8
CMF C11 H18 O2



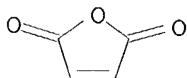
CM 2

CRN 591-12-8
CMF C5 H6 O2



CM 3

CRN 108-31-6
CMF C4 H2 O3

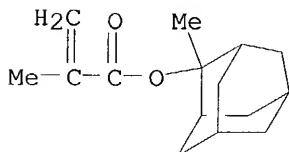


RN 403987-01-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 2,5-furandione and
5-methyl-2(3H)-furanone (9CI) (CA INDEX NAME)

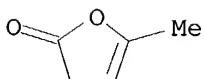
CM 1

CRN 177080-67-0
CMF C15 H22 O2



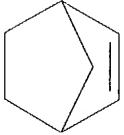
CM 2

CRN 591-12-8
CMF C5 H6 O2



CM 3

CRN 498-66-8
CMF C7 H10



CM 4

CRN 108-31-6
CMF C4 H2 O3



L109 ANSWER 36 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2002:119352 HCPLUS
DN 136:175472
TI Positive photosensitive composition for photofabrication using deep UV ray
IN Kodama, Kunihiro; Aoai, Toshiaki
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 120 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1179750	A1	20020213	EP 2001-117796	20010802
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002122994	A2	20020426	JP 2001-188670	20010621
	US 2002051933	A1	20020502	US 2001-921691	20010806
	US 6492091	B2	20021210		
PRAI	JP 2000-240059	A	20000808		

AB A pos. photosensitive composition comprises: (A) a compound generating an acid upon irradiation with one of an actinic ray and radiation; (B) a resin containing a monocyclic or polycyclic alicyclic hydrocarbon structure and increasing the solubility to an alkali developer by the action of an acid; and (C) an onium salt of carboxylic acid. The present invention relates to a pos. photosensitive composition for use in the production process of a semiconductor such as IC, in the production of a circuit board such as liquid crystal and thermal head, and in other photofabrication processes.

IT 398140-48-2P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin; deep UV photofabrication pos. photoresist composition containing)

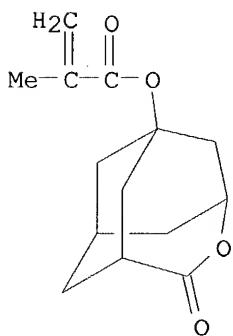
RN 398140-48-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonylpropyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 348596-87-2

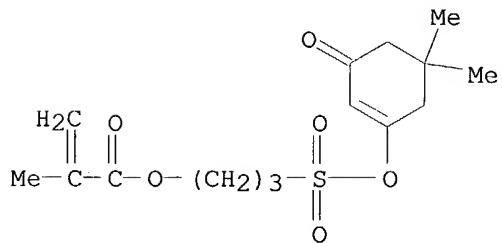
CMF C14 H18 O4



CM 2

CRN 289040-47-7

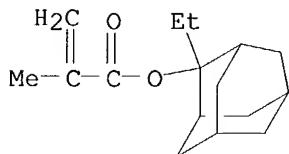
CMF C15 H22 O6 S



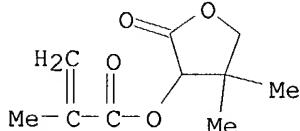
CM 3

CRN 209982-56-9

CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L109 ANSWER 37 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:771033 HCAPLUS

DN 135:325256

TI Polymers containing oxygen and sulfur alicyclic units and photoresist

compositions comprising same

IN Barclay, George G.; Yueh, Wang

PA Shipley Company, L.L.C., USA

SO U.S., 13 pp.

CODEN: USXXAM

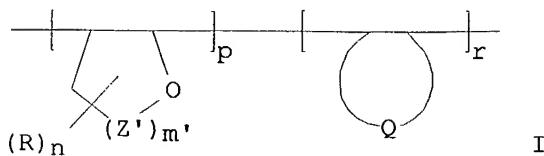
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6306554	B1	20011023	US 2000-567634	20000509
	WO 2001086353	A1	20011115	WO 2001-US14914	20010508
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW	AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW	AT, BE, CH, CY, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, GI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
	EP 1210650	A1	20020605	EP 2001-933209	20010508
	R:	AT, BE, CH, DE, DK, ES, FR, IE, SI, LT, LV, FI, RO, MK,	GB, GR, IT, LI, LU, NL, SE, MC, PT, CY, AL, TR		
	JP 2003532933	T2	20031105	JP 2001-583242	20010508
	US 2003224282	A1	20031204	US 2001-927040	20010809
	US 6680159	B2	20040120		
	US 2003073030	A1	20030417	US 2001-39340	20011231
PRAI	US 2000-567634	A2	20000509		
	WO 2001-US14914	W	20010508		

GI



AB The invention includes polymers that contain a heterocyclic ring, preferably an oxygen- or sulfur-containing ring represented by I ($Z' = O, S$, $C; m' = 1-4$; $Q =$ optionally substituted carbon alicyclic ring with two ring members being adjacent carbons of the polymer backbone; $R =$ non-hydrogen substituent; $n =$ integer > 0 ; $p =$ mole fraction of the fused oxygen ring units based on the total units in the polymer; $r =$ mole fraction of the fused carbon units based on total units in the polymer; p and $r > 0$). The heterocyclic ring is preferably fused to the polymer backbone. The invention also provides photoresists that contain such polymers, particularly for imaging at short wavelengths such as sub-200 nm.

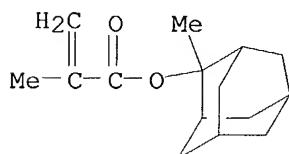
IT 367925-26-6P, 3,4-Dihydro-2-ethoxy-2H-pyran-maleic anhydride-2-methyladamantyl methacrylate-norbornene copolymer
367925-27-7P, 3,4-Dihydro-2-methoxy-2H-pyran-maleic anhydride-2-methyladamantyl methacrylate-norbornene copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of heterocyclic resins for photoresists composition)
RN 367925-26-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 2-ethoxy-3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

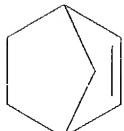
CM 1

CRN 177080-67-0
CMF C15 H22 O2



CM 2

CRN 498-66-8
CMF C7 H10



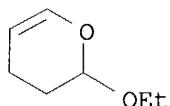
CM 3

CRN 108-31-6
CMF C4 H2 O3



CM 4

CRN 103-75-3
CMF C7 H12 O2

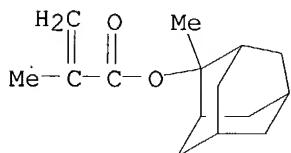


RN 367925-27-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2-methoxy-2H-pyran and
2,5-furandione (9CI) (CA INDEX NAME)

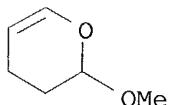
CM 1

CRN 177080-67-0
CMF C15 H22 O2



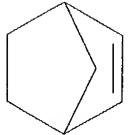
CM 2

CRN 4454-05-1
CMF C6 H10 O2



CM 3

CRN 498-66-8
CMF C7 H10



CM 4

CRN 108-31-6
CMF C4 H2 O3



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L109 ANSWER 38 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

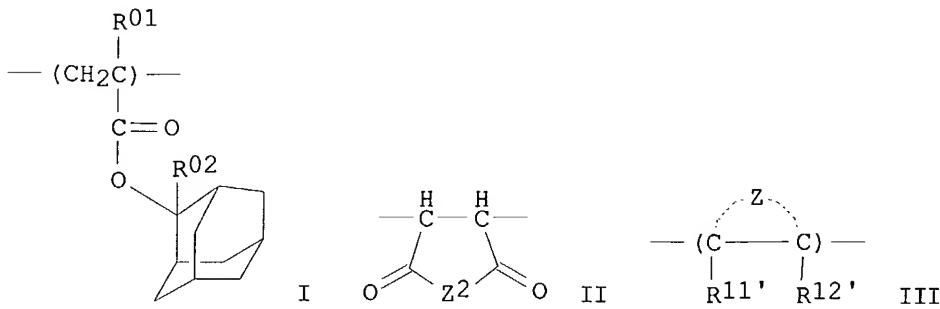
AN 2001:760380 HCAPLUS
DN 135:310933

TI Positive photoresists showing minimized dependency on pattern density for deep-UV photolithography

IN Kodama, Kunihiro; Sato, Kenichiro; Aogo, Toshiaki
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 77 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001290276	A2	20011019	JP 2000-383801	20001218
PRAI	JP 1999-358017	A	19991216		
	JP 2000-28237	A	20000204		
OS	MARPAT 135:310933				
GI					



AB The photoresists, for ultramicrolithog. utilizing ≤ 220 -nm actinic rays (especially ArF excimer lasers), comprise (A) photoacid generators RFSO₃-X+ [X = iodonium or sulfonium (Markush given); RF = C₁-10 fluoroalkyl] where ≥ 1 pair of them satisfy difference in carbon number of RF moieties 2-8 and (B) C ≥ 6 -alicyclic group-bearing acid-labile polymers. Suitable polymers consist of I [R₀₁ = H, C₁-4 alkyl; R₀₂ = C₁-4 alkyl; W = single bond, alkylene, (thio)ether, carbonyl, and/or ester] and [CH₂:CR'01(CO₂WLc)] (Ra-f = H, C₁-4 alkyl essentially containing single bond or C₁-4 alkylene; m, n = 0-3 integer; (m + n) = 2-6 integer). Other suitable polymers consist of (i) [CH(COXAR'1)CH(COXAR'2)] [R'1, R'2 = H, cyano, OH, etc.; X = O, S, NH, NHSO₂, NHSO₂NH; A = single bond, bivalent bridge] or II [Z₂ = O, NR'3 [R'3 = H, OH, OSO₂R'4 [R'4 = (halo)alkyl, cycloalkyl, camphor residue]]] and (ii) III [R'11, R'12 = H, cyano, halo, alkyl; Z = (substituted) alicyclic group]. The photoresists may contain N-containing basic compds. and/or F- and/or silicone-containing surfactants.

The photoresists show high resolution and excellent pattern profile.

IT 332877-31-3P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
(chemical-amplified deep-UV pos. **photoresists** containing fluoroalkylsulfonate salts as photoacid generators)

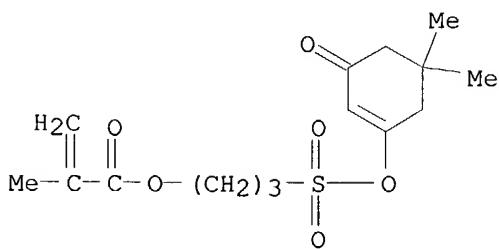
RN 332877-31-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonylpropyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

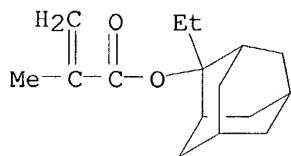
CRN 289040-47-7

CMF C15 H22 O6 S



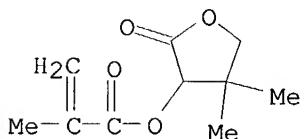
CM 2

CRN 209982-56-9
CMF C16 H24 O2



CM 3

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 39 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2001:579376 HCPLUS

DN 135:172987

TI Positive-working chemically amplified photoresist composition containing carboxylic acids of low molecular weight

IN Kodama, Kunihiro; Sato, Kenichiro; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

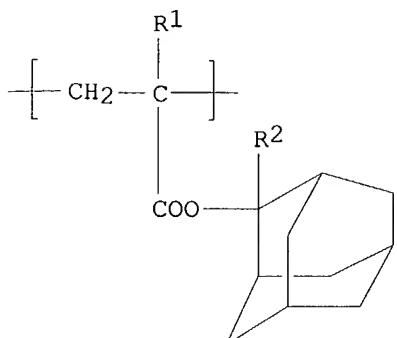
DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001215709	A2	20010810	JP 2000-29257	20000207
PRAI JP 2000-29257		20000207		

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505



I

AB The title composition contains an acid-sensitive resin which increases the dissoln. rate on reacting with an acid, and a photoacid generator, wherein $\leq 2,000$ mol. weight carboxylic acid is added to the composition. The resin has repeating units I and $[-\text{CH}_2-\text{C}(\text{R}1)(\text{COO}-\text{W}-\text{Lc})-]$ (R1 = H, Me, Lc = γ -lactone derivative; R2 = C1-4 alkyl; W = single bond, alkylene, ether, thioether, etc.). The resist composition, which the low mol. weight carboxylic acids, provides the high sensitivity, the high resolution, the reduced residue of the development using the acid-sensitive resin.

IT 332877-31-3P

RL: SPN (**Synthetic preparation**); TEM (Technical or engineered material use); PREP (**Preparation**); USES (**Uses**)
(acid-sensitive resin in pos.-working chemical amplified photoresist composition)

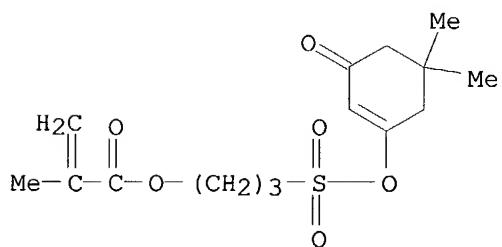
RN 332877-31-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 289040-47-7

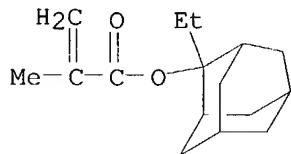
CMF C15 H22 O6 S



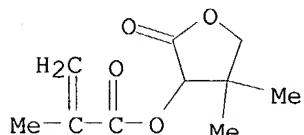
CM 2

CRN 209982-56-9

CMF C16 H24 O2



CM 3

CRN 156938-13-5
CMF C10 H14 O4L109 ANSWER 40 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2001:534446 HCPLUS

DN 135:129569

TI Chemically amplified photoresist compositions containing alkyl vinyl ether polymers for ArF excimer laser exposure

IN Choi, Sang Joon; Kim, Hyun Woo

PA Samsung Electronics Co., Ltd., S. Korea

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001200016	A2	20010724	JP 2001-12171	20010119
	EP 1120689	A2	20010801	EP 2001-300418	20010118
	EP 1120689	A3	20010808		
	R: AT, BE, CH, DE, DK, ES, GB, SI, LT, LV, FI, RO			GR, IT, LI, LU, NL, SE, MC, PT, IE,	
PRAI	KR 2000-2489	A	20000119		
	KR 2000-20603	A	20000419		

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The compns. comprise (a1) alkyl vinyl ether-maleic anhydride copolymers (Mw 3000-100,000) I [X = Q1, Q2 [y = 1-4; R1 = H, Me; R2 = C1-20 hydrocarbyl; R3 = H, C1-3 alkyl(oxy)]], (a2) photosensitive terpolymers bearing acid-labile or polar groups, (c) photoacid generators, and optional organic bases. Further claimed are photosensitive polymers represented by II [X, y, R1-3 = the same definitions as above; R4, R5 = H,

C1-25 aliphatic hydrocarbyl; R6 = H, Me; R7 = acid-labile C2-20 hydrocarbyl; n/(m + n + o) 0.1-0.7; o/(m + n + o) 0.1-0.7]. The compns. show good adhesion to undercoat layers in photolithog. and excellent dry-etching resistance.

IT 350992-58-4P

RL: PNU (Preparation, unclassified); **PREP (Preparation)**
(chemical amplified **photoresists** containing alkyl vinyl ether polymers for ArF excimer laser exposure)

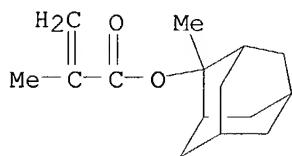
RN 350992-58-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with bicyclo[2.2.1]hept-2-ene, 3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

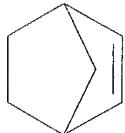
CMF C15 H22 O2



CM 2

CRN 498-66-8

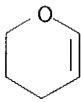
CMF C7 H10



CM 3

CRN 110-87-2

CMF C5 H8 O



CM 4

CRN 108-31-6

CMF C4 H2 O3



IT 328061-11-6P 328061-12-7P 350992-38-0P
350992-41-5P 350992-42-6P 350992-44-8P
350992-51-7P 350992-53-9P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chemical amplified photoresists containing alkyl vinyl ether polymers for ArF excimer laser exposure)

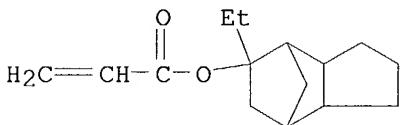
RN 328061-11-6 HCPLUS

CN 2-Propenoic acid, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester, polymer with 3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 307495-75-6

CMF C15 H22 O2



CM 2

CRN 110-87-2

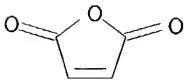
CMF C5 H8 O



CM 3

CRN 108-31-6

CMF C4 H2 O3



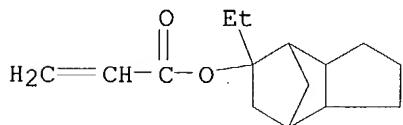
RN 328061-12-7 HCPLUS

CN 2-Propenoic acid, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester,

polymer with 2-ethoxy-3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

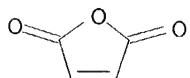
CM 1

CRN 307495-75-6
CMF C15 H22 O2



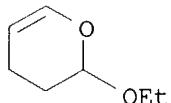
CM 2

CRN 108-31-6
CMF C4 H2 O3



CM 3

CRN 103-75-3
CMF C7 H12 O2

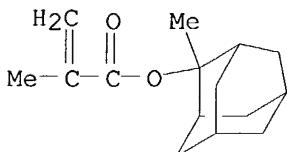


RN 350992-38-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0
CMF C15 H22 O2



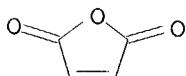
CM 2

CRN 110-87-2
CMF C5 H8 O



CM 3

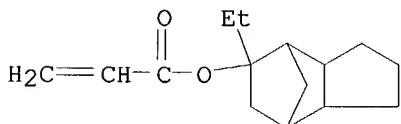
CRN 108-31-6
CMF C4 H2 O3



RN 350992-41-5 HCPLUS
CN 2-Propenoic acid, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester,
polymer with 2-(ethenyloxy)ethanol and 2,5-furandione (9CI) (CA INDEX
NAME)

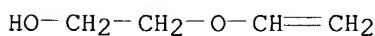
CM 1

CRN 307495-75-6
CMF C15 H22 O2



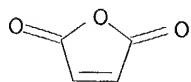
CM 2

CRN 764-48-7
CMF C4 H8 O2



CM 3

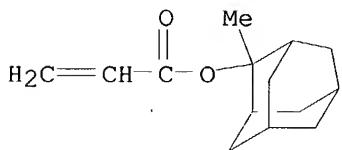
CRN 108-31-6
CMF C4 H2 O3



RN 350992-42-6 HCPLUS
CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with
3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9
CMF C14 H20 O2



CM 2

CRN 110-87-2
CMF C5 H8 O



CM 3

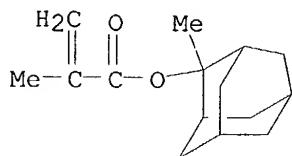
CRN 108-31-6
CMF C4 H2 O3



RN 350992-44-8 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 2-ethoxy-3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA
INDEX NAME)

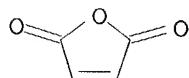
CM 1

CRN 177080-67-0
CMF C15 H22 O2



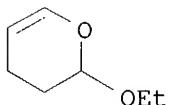
CM 2

CRN 108-31-6
CMF C₄ H₂ O₃



CM 3

CRN 103-75-3
CMF C₇ H₁₂ O₂

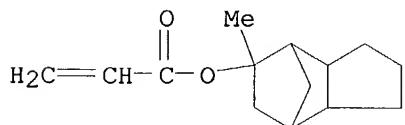


RN 350992-51-7 HCPLUS

CN 2-Propenoic acid, octahydro-5-methyl-4,7-methano-1H-inden-5-yl ester,
polymer with 1-(ethenyloxy)butane and 2,5-furandione (9CI) (CA INDEX
NAME)

CM 1

CRN 348089-10-1
CMF C₁₄ H₂₀ O₂



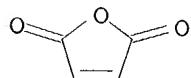
CM 2

CRN 111-34-2
CMF C₆ H₁₂ O

n-BuO—CH=CH₂

CM 3

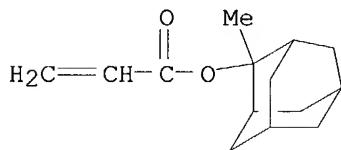
CRN 108-31-6
CMF C4 H2 O3



RN 350992-53-9 HCPLUS
CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with
1-(ethenyl)butane and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 249562-06-9
CMF C14 H20 O2



CM 2

CRN 111-34-2
CMF C6 H12 O

n-BuO—CH=CH₂

CM 3

CRN 108-31-6
CMF C4 H2 O3



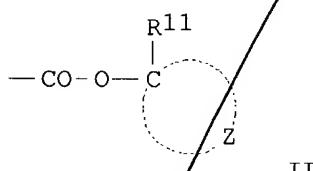
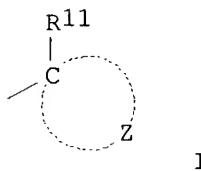
DN 134:123583
 TI Positive-working photoresist composition for far ultraviolet ray exposure
 IN Sato, Kenichiro; Kawabe, Yasumasa
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001022072	A2	20010126	JP 1999-193603	19990707
	US 6596458	B1	20030722	US 2000-563436	20000503
PRAI	JP 1999-127296	A	19990507		
	JP 1999-186607	A	19990630		
	JP 1999-193601	A	19990707		
	JP 1999-193602	A	19990707		
	JP 1999-193603	A	19990707		

GI



AB The title composition contains (a) a compound generating an acid by actinic ray or radiation irradiation, (b) a resin which has ≥ 1 repeating unit selected from the following (i), (ii), and (iii) and is cleaved by the action of acid to increase the solubility to alkali, and (c) a mixed solvent containing (1) heptanone and (2) γ -butyrolactone, ethylene carbonate, and/or propylene carbonate. (i) a repeating unit having alkali-soluble groups protected with ≥ 1 group selected from alicyclic hydrocarbon structure-containing groups I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R12-14 or either R15 or R16 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon; R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R22-25 is alicyclic hydrocarbon). (ii) a repeating unit CH2CR1(CO2X1Lc) (R1 = H, halo, C1-4 straight-chain or branched alkyl; X1 = divalent linking group; Lc = lactone group). (iii) ≥ 1 repeating unit selected from CH2CR1(CO2H), CH2CR1X20CR30R32CR31R33O(CR34R35CR36R37O)mR, CH2CR1(Z1R38AR39), and CH2CR1(CO2R40SO2OR41) [R1 = H, halo, C1-4 straight-chain or branched alkyl; R30-37 = H, (substituted) alkyl; R = H, alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); m = 1-10; X2 = single bond, alkylene, cyclic alkylene, arylene, divalent group which is composed of ≥ 1 of ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not cleaved by the action of acid; Z1 = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; R38 = single bond, alkylene, arylene, divalent group composed of these groups; R40= alkylene, arylene, divalent

group composed of these groups; R39 = alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); R41 = H, alkyl, cyclic alkyl, alkenyl, aryl, aralkyl (these groups may be substituted); A = CONHSO₂, SO₂NHCO, NHCONHSO₂, SO₂NHCONH, OCONHSO₂, SO₂NHCO₂, SO₂NHSO₂]. The resist shows high sensitivity toward far UV rays, especially ArF excimer laser beams and the resist solution exhibits improved storage stability.

IT 320779-41-7P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photoresist composition containing acid generator, alkali-soluble resin., and solvent)

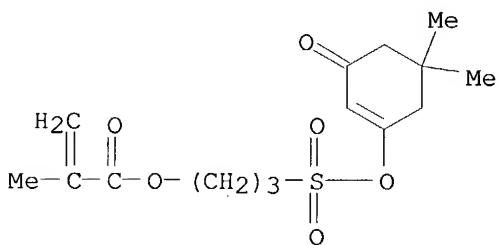
RN 320779-41-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonylpropyl ester, polymer with 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 289040-47-7

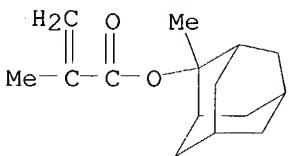
CMF C15 H22 O6 S



CM 2

CRN 177080-67-0

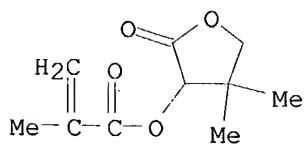
CMF C15 H22 O2



CM 3

CRN 156938-13-5

CMF C10 H14 O4



L109 ANSWER 42 OF 56 HCPLUS COPYRIGHT 2004 ACS on STM
 AN 2001:62630 HCPLUS
 DN 134:123582
 TI Positive-working photoresist composition for far ultraviolet ray exposure
 IN Sato, Kenichiro; Kawabe, Yasumasa
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

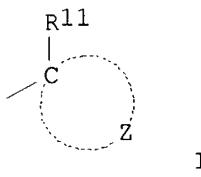
DT Patent

LA Japanese

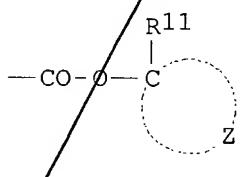
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001022071	A2	20010126	JP 1999-193602	19990707
	US 6596458	B1	20030722	US 2000-563436	20000503
PRAI	JP 1999-127296	A	19990507		
	JP 1999-186607	A	19990630		
	JP 1999-193601	A	19990707		
	JP 1999-193602	A	19990707		
	JP 1999-193603	A	19990707		

GI



I



II

AB The title composition contains (a) a compound generating an acid by actinic ray or radiation irradiation, (b) a resin which has ≥ 1 repeating unit selected from the following (i), (ii), and (iii) and is cleaved by the action of acid to increase the solubility to alkali, and (c) a mixed solvent containing (1) propyleneglycol monomethyl ether acetate or propyleneglycol monomethyl ether propionate and (2) γ -butyrolactone, ethylene carbonate, and/or propylene carbonate. (i) a repeating unit having alkali-soluble groups protected with ≥ 1 group selected from alicyclic hydrocarbon structure-containing groups I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R12-14 or either R15 or R16 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon; R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R22-25 is alicyclic hydrocarbon). (ii) a

repeating unit $\text{CH}_2\text{CR}_1(\text{CO}_2\text{X}_1\text{Lc})$ ($\text{R}_1 = \text{H}$, halo, C1-4 straight-chain or branched alkyl; X_1 = divalent linking group; Lc = lactone group). (iii) ≥ 1 repeating unit selected from $\text{CH}_2\text{CR}_1(\text{CO}_2\text{H})$, $\text{CH}_2\text{CR}_1\text{X}_2\text{CR}_3\text{O}_2\text{R}_3\text{CR}_3\text{I}_1\text{R}_3\text{S}_1$ ($\text{CR}_3\text{O}_2\text{R}_3\text{CR}_3\text{I}_1\text{R}_3\text{S}_1$) mR , $\text{CH}_2\text{CR}_1(\text{Z}_1\text{R}_3\text{S}_1\text{AR}_3\text{I}_1)$, and $\text{CH}_2\text{CR}_1(\text{CO}_2\text{R}_4\text{O}_2\text{S}_1\text{O}_2\text{R}_4\text{I}_1)$ [$\text{R}_1 = \text{H}$, halo, C1-4 straight-chain or branched alkyl; $\text{R}_{30-37} = \text{H}$, (substituted) alkyl; $\text{R} = \text{H}$, alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); $\text{m} = 1-10$; X_2 = single bond, alkylene, cyclic alkylene, arylene, divalent group which is composed of ≥ 1 of ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not cleaved by the action of acid; Z_1 = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; $\text{R}_{38} = \text{single bond, alkylene, arylene, divalent group composed of these groups; R}_{40} = \text{alkylene, arylene, divalent group composed of these groups; R}_{39} = \text{alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); R}_{41} = \text{H, alkyl, cyclic alkyl, alkenyl, aryl, aralkyl (these groups may be substituted); A = CONHSO}_2, SO_2NHCO, NHCONHSO_2, SO_2NHCONH, OCONHSO_2, SO_2NHC_2, SO_2NHSO_2]$. The resist shows high sensitivity toward far UV rays, especially ArF excimer laser beams and the resist solution exhibits improved storage stability.

IT

320779-41-7P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photoresist composition containing acid generator, alkali-soluble resin., and solvent)

RN

320779-41-7 HCAPLUS

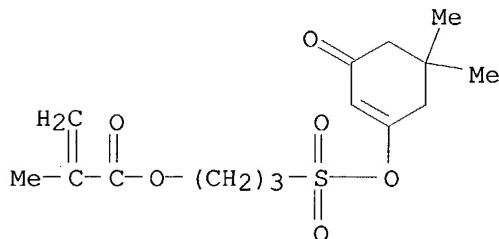
CN

2-Propenoic acid, 2-methyl-, 3-[[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 289040-47-7

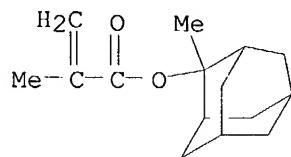
CMF C15 H22 O6 S



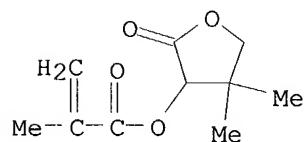
CM 2

CRN 177080-67-0

CMF C15 H22 O2



CM 3

CRN 156938-13-5
CMF C10 H14 O4

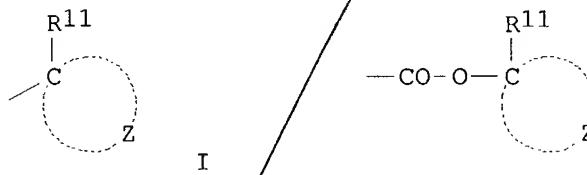
L109 ANSWER 43 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:62629 HCPLUS
 DN 134:123581
 TI Positive-working photoresist composition for far ultraviolet ray exposure
 IN Sato, Kenichiro; Kawabe, Yasumasa
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001022070	A2	20010126	JP 1999-193601	19990707
	US 6596458	B1	20030722	US 2000-563436	20000503
PRAI	JP 1999-127296	A	19990507		
	JP 1999-186607	A	19990630		
	JP 1999-193601	A	19990707		
	JP 1999-193602	A	19990707		
	JP 1999-193603	A	19990707		

GI



AB The title composition contains (a) a compound generating an acid by actinic ray or radiation irradiation, (b) a resin which has ≥1 repeating unit selected from the following (i), (ii), and (iii) and is cleaved by the

action of acid to increase the solubility to alkali, and (c) a mixed solvent containing heptanone and ≥ 1 selected from Et lactate, propyleneglycol monomethylether, and ethoxyethyl propionate. (i) a repeating unit having alkali-soluble groups protected with ≥ 1 group selected from alicyclic hydrocarbon structure-containing groups I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R12-14 or either R15 or R16 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon; R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R22-25 is alicyclic hydrocarbon). (ii) a repeating unit CH2CR1(CO2X1Lc) (R1 = H, halo, C1-4 straight-chain or branched alkyl; X1 = divalent linking group; Lc = lactone group). (iii) ≥ 1 repeating unit selected from CH2CR1(CO2H), CH2CR1X20CR30R32CR31R33O(CR34R35CR36R37O)mR, CH2CR1(Z1R38AR39), and CH2CR1(CO2R40SO20R41) [R1 = H, halo, C1-4 straight-chain or branched alkyl; R30-37 = H, (substituted) alkyl; R = H, alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); m = 1-10; X2 = single bond, alkylene, cyclic alkylene, arylene, divalent group which is composed of ≥ 1 of ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not cleaved by the action of acid; Z1 = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; R38 = single bond, alkylene, arylene, divalent group composed of these groups; R40 = alkylene, arylene, divalent group composed of these groups; R39 = alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); R41 = H, alkyl, cyclic alkyl, alkenyl, aryl, aralkyl (these groups may be substituted); A = CONHSO2, SO2NHCO, NHCONHSO2, SO2NHCONH, OCONHSO2, SO2NHC02, SO2NHSO2]. The resist shows high resolution toward far UV rays, especially ArF excimer laser beams, and improved edge roughness.

IT 320779-41-7P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photoresist composition containing acid generator, alkali-soluble resin., and solvent)

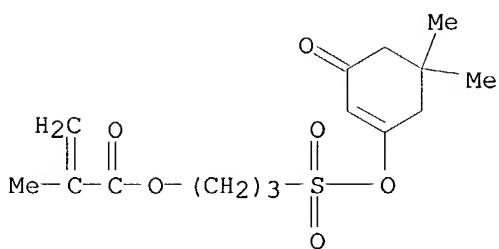
RN 320779-41-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

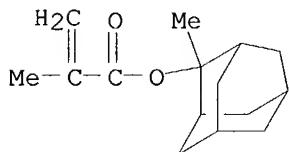
CRN 289040-47-7

CMF C15 H22 O6 S



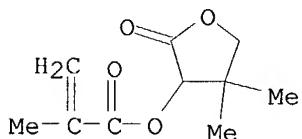
CM 2

CRN 177080-67-0
CMF C15 H22 O2



CM 3

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 44 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2001:46104 HCPLUS

DN 134:123570

TI Positive-working photoresist composition for far ultraviolet ray exposure

IN Sato, Kenichiro; Kawabe, Yasumasa

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 41 pp.

CODEN: JKXXAF

DT Patent

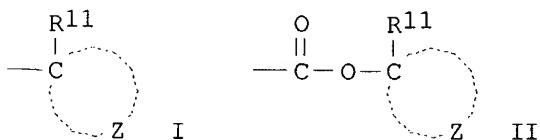
LA Japanese

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001013686	A2	20010119	JP 1999-186607	19990630
	US 6596458	B1	20030722	US 2000-563436	20000503
PRAI	JP 1999-127296	A	19990507		
	JP 1999-186607	A	19990630		

JP 1999-193601 A 19990707
 JP 1999-193602 A 19990707
 JP 1999-193603 A 19990707

GI



AB The title composition contains (a) a compound generating an acid by actinic ray or radiation irradiation, (b) a resin which has ≥ 1 repeating unit selected from the following (i), (ii), and (iii) and is cleaved by the action of acid to increase the solubility to alkali, and (c) a mixed solvent containing propyleneglycol monomethylether acetate or propionate and ≥ 1 selected from Et lactate, propyleneglycol monomethylether, and ethoxyethyl propionate. (i) a repeating unit having alkali-soluble groups protected with ≥ 1 group selected from alicyclic hydrocarbon structure-containing groups I, CR12R13R14, CH(OR15)R16, CR19R21CR17:CR18R20, CR22R25CHR23COR24, and II (R11 = Me, Et, Pr, iso-Pr, Bu, iso-Bu, sec-Bu; Z = atoms required to form an alicyclic hydrocarbon group along with the C atom; R12-16 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R12-14 or either R15 or R16 is alicyclic hydrocarbon; R17-21 = H, C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R17-21 is alicyclic hydrocarbon and either R19 or R21 is C1-4 straight-chain or branched alkyl or alicyclic hydrocarbon; R22-25 = C1-4 straight-chain or branched alkyl, alicyclic hydrocarbon, ≥ 1 of R22-25 is alicyclic hydrocarbon). (ii) a repeating unit CH2CR1(CO2X1Lc) (R1 = H, halo, C1-4 straight-chain or branched alkyl; X1 = divalent linking group; Lc = lactone group). (iii) ≥ 1 repeating unit selected from CH2CR1(CO2H), CH2CR1X2OCR30R32CR31R330(CR34R35CR36R370)mR, CH2CR1(Z1R38AR39), and CH2CR1(CO2R40SO2OR41) [R1 = H, halo, C1-4 straight-chain or branched alkyl; R30-37 = H, (substituted) alkyl; R = H, alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); m = 1-10; X2 = single bond, alkylene, cyclic alkylene, arylene, divalent group which is composed of ≥ 1 of ether, thioether, carbonyl, ester, amide, sulfonamide, urethane, and urea groups and is not cleaved by the action of acid; Z1 = single bond, ether, ester, amide, alkylene, divalent group composed of these groups; R38 = single bond, alkylene, arylene, divalent group composed of these groups; R40 = alkylene, arylene, divalent group composed of these groups; R39 = alkyl, cyclic alkyl, aryl, aralkyl (these groups may be substituted); R41 = H, alkyl, cyclic alkyl, alkenyl, aryl, aralkyl (these groups may be substituted); A = CONHSO2, SO2NHCO, NHCONHSO2, SO2NHCONH, OCONHSO2, SO2NHCO2, SO2NHSO2]. The resist shows high sensitivity toward far UV rays, especially ArF excimer laser beams and the resist solution exhibits improved storage stability.

IT 320779-41-7P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); **PREP (Preparation)**; USES (Uses)
 (photoresist composition containing acid generator, alkali-soluble resin., and solvent)

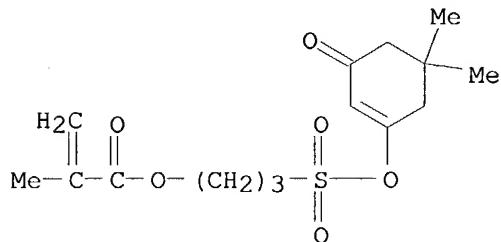
RN 320779-41-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl

2-methyl-2-propenoate (9CI) (CA INDEX NAME)

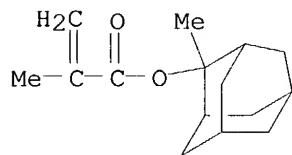
CM 1

CRN 289040-47-7
CMF C15 H22 O6 S



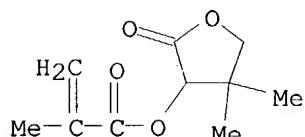
CM 2

CRN 177080-67-0
CMF C15 H22 O2



CM 3

CRN 156938-13-5
CMF C10 H14 O4



L109 ANSWER 45 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2000:877012 HCPLUS
DN 134:63889
TI Far-UV positive-working photoresist composition
IN Sato, Kenichiro; Kodama, Kunihiko; Aogo, Toshiaki
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000347409	A2	20001215	JP 1999-158695	19990604
	US 6479211	B1	20021112	US 2000-577884	20000525
PRAI	JP 1999-146774	A	19990526		
	JP 1999-146775	A	19990526		
	JP 1999-150215	A	19990528		
	JP 1999-152860	A	19990531		
	JP 1999-152861	A	19990531		
	JP 1999-152862	A	19990531		
	JP 1999-158693	A	19990604		
	JP 1999-158695	A	19990604		

GI

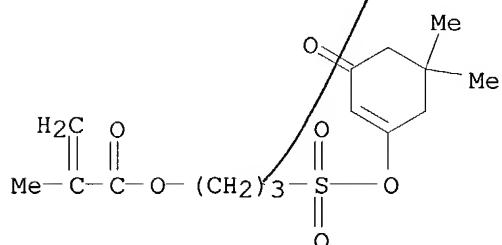
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The far-UV pos.-working photoresist composition comprises a photoacid represented by I or II ($R1-5 = H, \text{alkyl, etc.}; p, q, n1 = 1-5; m, n = 0-5; X = \text{counter ion}$) and a resin which has repeating unit of III ($Rb1-b4 = \text{substituent}$) and increases its solubility in an alkaline developer upon reaction with an acid. This photoresist composition was particularly suited for $\leq 220\text{nm}$ exposure.

IT 312616-52-7P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (far-UV pos.-working photoresist composition from)

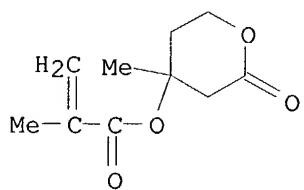
RN 312616-52-7 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 289040-47-7
 CMF C15 H22 O6 S

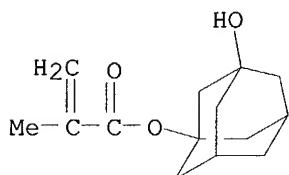
CM 2

CRN 177080-66-9
 CMF C10 H14 O4



CM 3

CRN 115372-36-6
CMF C14 H20 O3



L109 ANSWER 46 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2000:877011 HCPLUS

DN 134:63888

TI Positive-working chemical amplification photoresist composition for far-ultraviolet ray exposure

IN Sato, Kenichiro; Kodama, Kunihiko; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 52 pp.

CODEN: JKXXAF

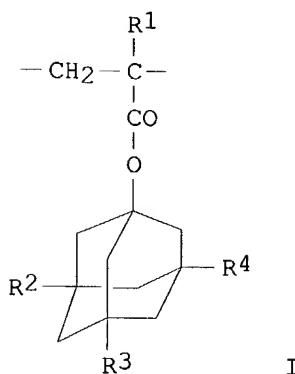
DT Patent

LA Japanese

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000347408	A2	20001215	JP 1999-158693	19990604
	US 6479211	B1	20021112	US 2000-577884	20000525
PRAI	JP 1999-146774	A	19990526		
	JP 1999-146775	A	19990526		
	JP 1999-150215	A	19990528		
	JP 1999-152860	A	19990531		
	JP 1999-152861	A	19990531		
	JP 1999-152862	A	19990531		
	JP 1999-158693	A	19990604		
	JP 1999-158695	A	19990604		

GI



AB A pos.-working photoresist containing (A) a compound generating an acid upon irradiation with active ray or radioactive ray, (B) a resin having a repeating unit (I; R₁ = H, halo, C₁-4 linear or branched alkyl; R₂ - R₄ = H or OH, provided that at least one of R₂ - R₄ is OH) and decomposing upon reaction with an acid to increase the solubility in an alkali developer, and (C) a compound generating sulfonic acid is described. This photoresist decreases the development of defects or the formation of scums when using an exposure source of 150 nm wavelength, in particular <220 nm, and improves microlithog. (photolithog.) process of LSI and microchips using far-UV ray such as excimer laser beam.

IT 312616-52-7P

RL: **SPN (Synthetic preparation);** TEM (Technical or engineered material use); **PREP (Preparation);** USES (Uses)
(pos.-working chemical amplification **photoresist** composition for far-UV ray exposure)

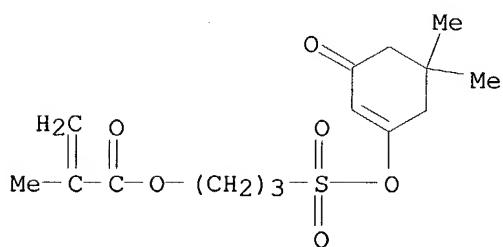
RN 312616-52-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate. (9CI) (CA INDEX NAME).

CM 1

CRN 289040-47-7

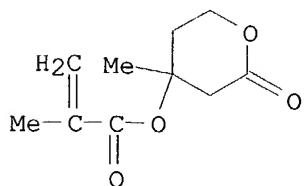
CMF C15 H22 O6 S



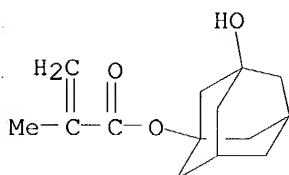
CM 2

CRN 177080-66-9

CMF C10 H14 O4



CM 3

CRN 115372-36-6
CMF C14 H20 O3L109 ANSWER 47 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2000:863764 HCPLUS

DN 134:49207

TI Argon fluoride excimer laser-sensitive positive-working photoresist composition

IN Sato, Kenichiro; Nakao, Hajime; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000338681	A2	20001208	JP 1999-152862	19990531
	US 6479211	B1	20021112	US 2000-577884	20000525
PRAI	JP 1999-146774	A	19990526		
	JP 1999-146775	A	19990526		
	JP 1999-150215	A	19990528		
	JP 1999-152860	A	19990531		
	JP 1999-152861	A	19990531		
	JP 1999-152862	A	19990531		
	JP 1999-158693	A	19990604		
	JP 1999-158695	A	19990604		

AB The title composition contains an acid-generating compound, a resin sensitive to an acid to become soluble in an alkali, and a solvent. The resin has a specific repeating unit containing an adamantane structure. The solvent contains 60-90 % of Et lactate, propylene glycol monomethyl ether acetate, propylene glycol monomethyl ether propionate, Me 3-methoxypropionate, Et

3-methoxypropionate, or 2-heptanone. The solvent also contains 10-40 % of a solvent having ≤ 1 cPs at 20 °C. The composition provides the high sensitivity, the high resolution, the excellent dry-etching resistance, the strong contact to the substrate.

IT 312616-52-7P

RL: **SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**
 (resin in argon fluoride excimer laser-sensitive pos.-working photoresist composition)

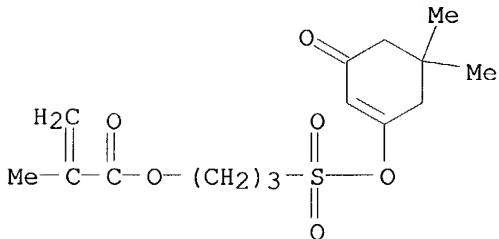
RN 312616-52-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 289040-47-7

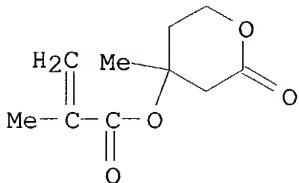
CMF C15 H22 O6 S



CM 2

CRN 177080-66-9

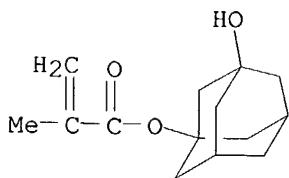
CMF C10 H14 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



L109 ANSWER 48 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:863763 HCAPLUS

DN 134:49206

TI Excimer laser-sensitive positive-working photoresist composition

IN Sato, Kenichiro; Kodama, Kunihiko; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 72 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000338680	A2	20001208	JP 1999-152861	19990531
	US 6479211	B1	20021112	US 2000-577884	20000525
PRAI	JP 1999-146774	A	19990526		
	JP 1999-146775	A	19990526		
	JP 1999-150215	A	19990528		
	JP 1999-152860	A	19990531		
	JP 1999-152861	A	19990531		
	JP 1999-152862	A	19990531		
	JP 1999-158693	A	19990604		
	JP 1999-158695	A	19990604		

AB The title composition contains an acid-generating compound, a resin sensitive to

an acid to become soluble in an alkali, and a polyester or a naphthalene ester. The resin has a specific repeating unit containing an adamantine structure. The composition provides the high sensitivity, resolution, dry-etching

resistance, contact to the substrate.

IT 312616-52-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resin in excimer laser-sensitive pos.-working photoresist composition)

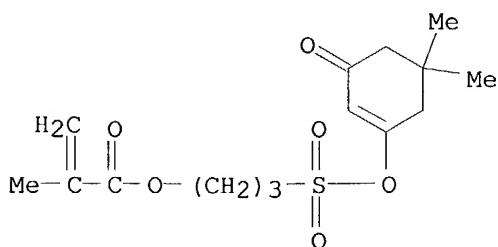
RN 312616-52-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]deca-1-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

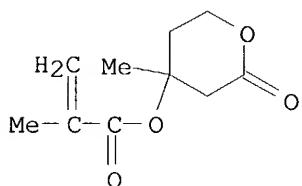
CRN 289040-47-7

CMF C15 H22 O6 S



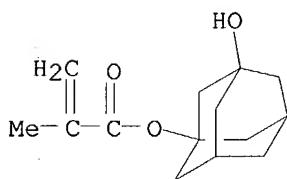
CM 2

CRN 177080-66-9
CMF C10 H14 O4



CM 3

CRN 115372-36-6
CMF C14 H20 O3



L109 ANSWER 49 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2000:863762 HCPLUS

DN 134:49205

TI Argon fluoride excimer laser-sensitive positive-working photoresist composition

IN Sato, Kenichiro; Nakao, Hajime; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 8

PATENT NO.

KIND DATE

APPLICATION NO. DATE

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PI	JP 2000338679	A2	20001208	JP 1999-152860	19990531
	US 6479211	B1	20021112	US 2000-577884	20000525
PRAI	JP 1999-146774	A	19990526		
	JP 1999-146775	A	19990526		
	JP 1999-150215	A	19990528		
	JP 1999-152860	A	19990531		
	JP 1999-152861	A	19990531		
	JP 1999-152862	A	19990531		
	JP 1999-158693	A	19990604		
	JP 1999-158695	A	19990604		

AB The title composition contains an acid-generating compound, a resin sensitive to an acid to become soluble in an alkali, a solvent consisting of Et lactate and Et 3-ethoxypropionate. The resin has a specific repeating unit containing an adamantane structure. The composition provides the high sensitivity, resolution, the high dry-etching resistance, and the strong contact to the substrate.

IT 312616-52-7P

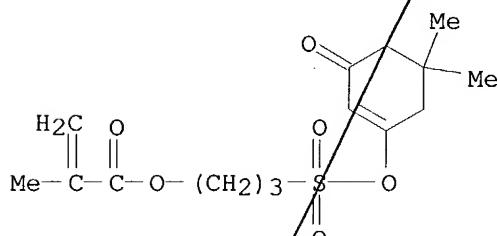
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin in excimer laser-sensitive pos.-working photoresist composition)

RN 312616-52-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

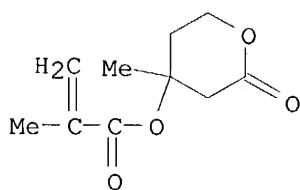
CM 1

CRN 289040-47-7
CMF C15 H22 O6 S

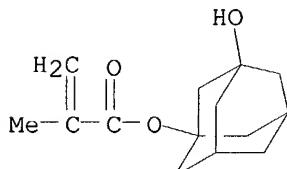


CM 2

CRN 177080-66-9
CMF C16 H14 O4



CM 3

CRN 115372-36-6
CMF C14 H20 O3

L109 ANSWER 50 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2000:863759 HCAPLUS
 DN 134:49202
 TI Argon fluoride excimer laser-sensitive positive-working photoresist composition
 IN Sato, Kenichiro; Nakao, Hajime; Aogo, Toshiaki
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 8

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000338676	A2	20001208	JP 1999-150215	19990528
US 6479211	B1	20021112	US 2000-577884	20000525
PRAI JP 1999-146774	A	19990526		
JP 1999-146775	A	19990526		
JP 1999-150215	A	19990528		
JP 1999-152860	A	19990531		
JP 1999-152861	A	19990531		
JP 1999-152862	A	19990531		
JP 1999-158693	A	19990604		
JP 1999-158695	A	19990604		

AB The title composition contains an acid-generating compound, a resin sensitive to an acid to become soluble in an alkali, a fluorinated surfactant and/or a silicone surfactant. The resin has a specific repeating unit containing an adamantane structure. The composition provides a resist of the high sensitivity, the high resolution, the strong dry-etching resistance, and the excellent contact to the substrate.

IT 312616-52-7P

RL: **SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)**
(resin in excimer laser-sensitive pos.-working photoresist composition)

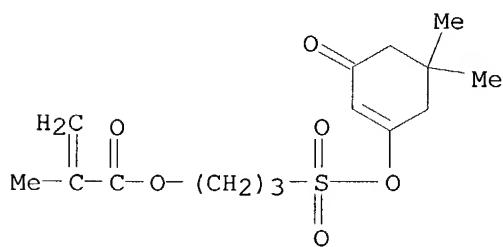
RN 312616-52-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]deca-1-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 289040-47-7

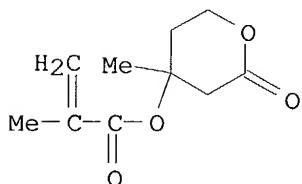
CMF C15 H22 O6 S



CM 2

CRN 177080-66-9

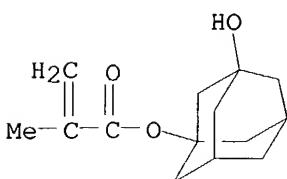
CMF C10 H14 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



L109 ANSWER 51 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:863756 HCAPLUS

DN 134:49199

TI Far-UV positive-working photoresist composition

IN Sato, Kenichiro; Kodama, Kunihiko; Aogo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 34 pp.

CODEN: JKXXAF

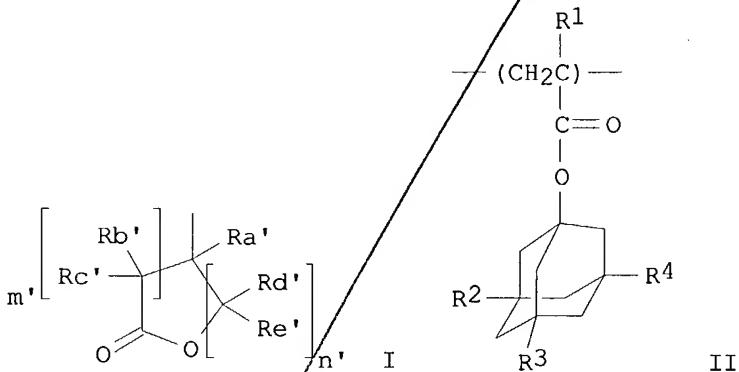
DT Patent

LA Japanese

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000338673	A2	20001208	JP 1999-146774	19990526
	US 6479211	B1	20021112	US 2000-577884	20000525
PRAI	JP 1999-146774	A	19990526		
	JP 1999-146775	A	19990526		
	JP 1999-150215	A	19990528		
	JP 1999-152860	A	19990531		
	JP 1999-152861	A	19990531		
	JP 1999-152862	A	19990531		
	JP 1999-158693	A	19990604		
	JP 1999-158695	A	19990604		

GI



AB The title photoresist composition comprises a photoacid and a resin which, increasing alkaline solubility upon the reaction with an acid, contains a repeating

unit I ($Ra' = H$, C1-4 alkyl; $m' = 0-2$; $n' = 1-3$; $2 \leq (m' + n') \leq 6$) and II ($R1 = H$, halo, C104 alkyl; $R2-4 = H, OH$).

IT 312616-52-7P

RL: POF (Polymer in formulation); SPN (Synthetic preparation);
TEM (Technical or engineered material use); PREP (Preparation);
USES (Uses)

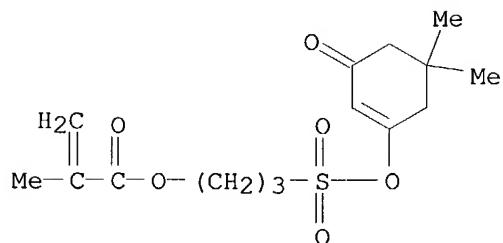
(far-UV pos.-working photoresist composition from)

RN 312616-52-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]deca-1-yl 2-methyl-2-propenoate and tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

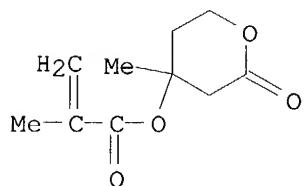
CM 1

CRN 289040-47-7
CMF C15 H22 O6 S



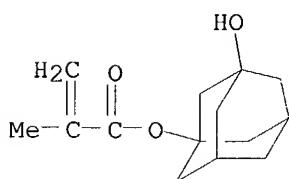
CM 2

CRN 177080-66-9
CMF C10 H14 O4



CM 3

CRN 115372-36-6
CMF C14 H20 O3



L109 ANSWER 52 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 1999:518692 HCPLUS

DN 131:192796

TI Transparent compound, transparent resin, photosensitive composition containing transparent resin, and manufacture of semiconductor device using the composition

IN Oshita, Atsushi; Kumata, Teruhiko

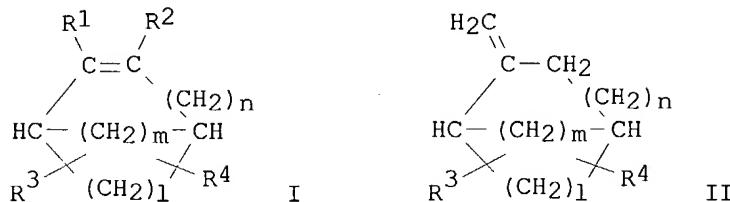
PA Mitsubishi Electric Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11222460	A2	19990817	JP 1998-113503	19980423
PRAI	JP 1997-331796		19971202		
GI					



AB The transparent compound is a product of reaction between a carboxylic acid and unsatd. tricyclic compound I or II (R1 and/or R2 = Me, the rest is H; R3, R4 = hydrocarbyl or R3 and R4 form alkyl-substituted cyclic structure) in a strong acid. The resin contains a product of reaction between a C:C-containing carboxylic acid and I or II in a strong acid. The composition contains the transparent resin and a compound releasing acid under light or radiation irradiation. The semiconductor device is manufactured by a process including forming a film made of the composition on a substrate, imagewise exposing the film by short-wave-length laser, and developing the pattern. The photosensitive photoresist composition shows high transparency to ArF excimer laser region and dry etching resistance.

IT 239096-21-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(unsatd. tricyclic compound carboxylate for transparent resin as laser-sensitive photoresist with dry etching resistance for semiconductor device fabrication)

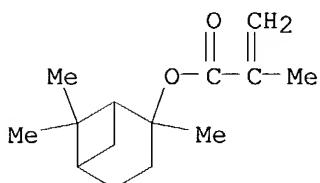
RN 239096-21-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,6,6-trimethylbicyclo[3.1.1]hept-2-yl ester, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

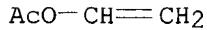
CRN 239096-06-1

CMF C14 H22 O2



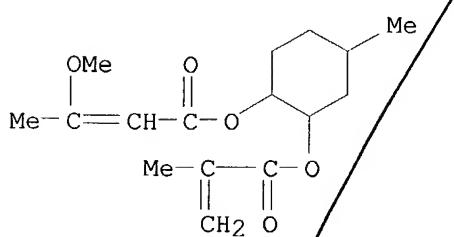
CM 2

CRN 108-05-4
 CMF C4 H6 O2

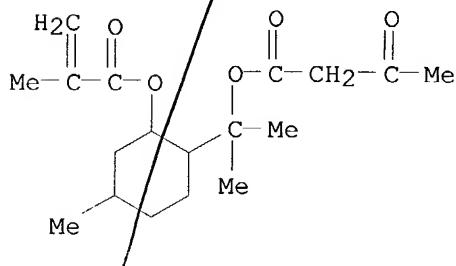


L109 ANSWER 53 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:721577 HCPLUS
 DN 129:349062
 TI Resist composition and its use for forming patterns
 IN Sumino, Motoshige; Fukasawa, Kazuhito; Matsuo, Takahiro
 PA Wako Pure Chemical Industries, Ltd, Japan; Matsushita Electric Industrial Co., Ltd.
 SO Eur. Pat. Appl., 32 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 875789	A1	19981104	EP 1998-303331	19980429
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 11015164	A2	19990122	JP 1998-136123	19980430
PRAI	JP 1997-126402		19970430		
AB	A resist composition comprising (a) a polymer having repeating units of the formula $-[C(R_1)(R_2)C(R_3)ZOCOR_4]-$ (R_{1-3} = hydrogen, alkyl, cyano, alkyloxycarbonyl, or carbamoyl; Z = a spacer or a direct link and R = hydroxyalkyl having protected terminal hydroxy), (b) a photoacid generator, and (c) a solvent is effective for forming patterns using an ArF excimer laser.				
IT	215382-90-4P RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation and use in photoresists effective for forming patterns using argon fluoride excimer lasers)				
RN	215382-90-4 HCPLUS				
CN	2-Butenoic acid, 3-methoxy-, 4-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]cyclohexyl ester, polymer with 1-methyl-1-[4-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]cyclohexyl]ethyl 3-oxobutanoate (9CI) (CA INDEX NAME)				
	CM 1				
	CRN 215382-89-1 CMF C16 H24 O5				



CM 2

CRN 215051-54-0
CMF C18 H28 O5

RE.CNT 1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L109 ANSWER 54 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN

AN 1997:619209 HCPLUS

DN 127:301275

TI Cyclic carbonyl enol-containing photoresist for alkaline development

IN Gokochi, Toru; Asakawa, Koji; Kono, Naomi; Nakase, Makoto

PA Toshiba Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

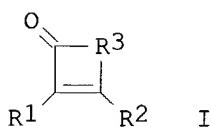
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09244235	A2	19970919	JP 1996-56610	19960314
PRAI	JP 1996-56610		19960314		
OS	MARPAT 127:301275				
GI					



AB The photoresist contains an acid compd having a 4- or 6-membered ring compound I (R1, 2 = H, OH, monovalent organic group; R3 = divalent organic group), its ether, and/or its salt. The photoresist contains an acid polymer compound having the 4- or 6-membered ring compound, a soluble-prevention agent, and a photoacid generator. The photoresist contains an ether having the 4- or 6-membered ring acid compound containing an acid-decomposable group and/or an acid-crosslinkable group and a photoacid generator. The photoresist contains an acid-decomposable group- or an acid-crosslinkable group-containing compound and a photoacid generator containing an onium salt of the acid compound.

The photoresist contains an acid-decomposable group- or an acid-crosslinkable group-containing compound, a photoacid generator, the acid compound. The photoresist shows transparency to short wavelength and good dry-etching resistance. The photoresist is useful for semiconductor device fabrication.

IT 197161-19-6P, tert-Butyl methacrylate; 5-methyl-1,3-dione-4-cyclopentene-4-oxyethyl methacrylate; methyl methacrylate; methacrylic acid copolymer 197161-20-9P, 4-Hydroxyethyl methacrylate ether with 4-hydroxy-5-methyl-4-cyclopentene-1,3-dione-methyl methacrylate-methacrylic acid copolymer 197161-22-1P, tert-Butyl methacrylate-4-hydroxyethyl methacrylate ether with 1-monoisopropoxy-3-hydroxycyclobutene-1,3-dione-methyl methacrylate-methacrylic acid copolymer

RL: DEV (Device component use); IMF (Industrial manufacture);
PREP (Preparation); USES (Uses)

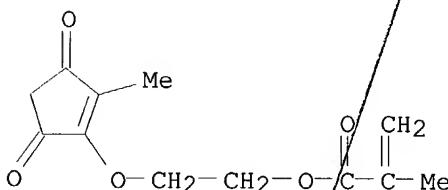
(photoresist containing cyclic carbonyl enol compound for alkaline development)

RN 197161-19-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, 2-[2-methyl-3,5-dioxo-1-cyclopenten-1-yl]oxy]ethyl 2-methyl-2-propenoate and (1 α ,2 β ,5 α)-5-methyl-2-(1-methylethyl)cyclohexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

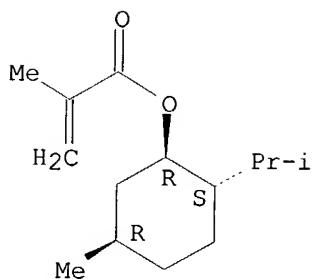
CRN 197161-18-5
CMF C12 H14 O5



CM 2

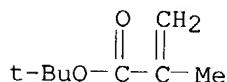
CRN 7372-67-0
CMF C14 H24 O2

Relative stereochemistry.



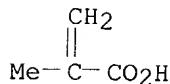
CM 3

CRN 585-07-9
CMF C8 H14 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2

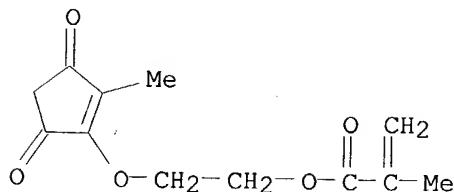


RN 197161-20-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-[(2-methyl-3,5-dioxo-1-cyclopenten-1-yl)oxylethyl 2-methyl-2-propenoate and (1 α ,2 β ,5 α)-5-methyl-2-(1-methylethyl)cyclohexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

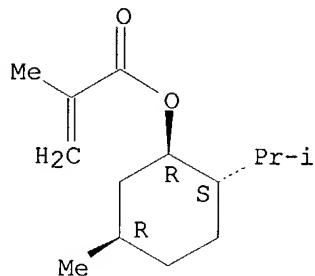
CRN 197161-18-5
CMF C12 H14 O5



CM 2

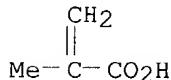
CRN 7372-67-0
CMF C14 H24 O2

Relative stereochemistry.



CM 3

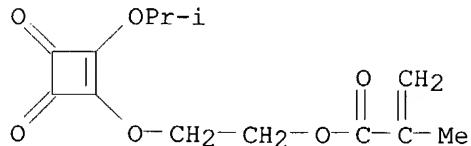
CRN 79-41-4
CMF C4 H6 O2



RN 197161-22-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate, 2-[2-(1-methylethoxy)-3,4-dioxo-1-cyclobuten-1-yloxy]ethyl 2-methyl-2-propenoate and (1 α ,2 β ,5 α)-5-methyl-2-(1-methylethyl)cyclohexyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

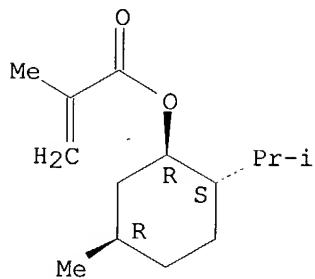
CRN 197161-21-0
CMF C13 H16 O6



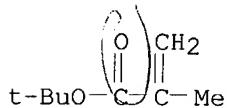
CM 2

CRN 7372-67-0
CMF C14 H24 O2

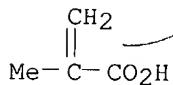
Relative stereochemistry.



CM 3

CRN 585-07-9
CMF C8 H14 O2

CM 4

CRN 79-41-4
CMF C4 H6 O2L109 ANSWER 55 OF 56 HCPLUS COPYRIGHT 2004 ACS on STN
AN 1997:610797 HCPLUS

DN 127:248563

TI Addition vinyl polymers having hydrophilic group and other functional group

IN Urano, Fumiyoishi; Sumino, Motoshige; Maesawa, Tsuneaki

PA Wako Pure Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 794199	A2	19970910	EP 1997-103416	19970301
	EP 794199	A3	19991020		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
	US 5973094	A	19991026	US 1997-811215	19970305
	JP 09296010	A2	19971118	JP 1997-69164	19970306

PRAI JP 1996-79584 19960307

AB Title polymers are prepared from a monomer unit containing a hydroxy group or

other hydrophilic radical and other functional group, i.e. cyano group, aminocarbonyl, or a carboxyl group which may be esterified. Thus, Me pyruvate was treated with acetic anhydride to give Me 2-acetyloxyacrylate (b. 65-68°), polymerized in the presence of V-601 to give poly(Me 2-acetyloxyacrylate) [weight-average mol. weight (Mw) 48,500], and deprotected

to

give poly(2-hydroxyacrylic acid) (Mw 29,500).

IT 195732-05-9DP, deprotected 195732-09-3DP, deprotected

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

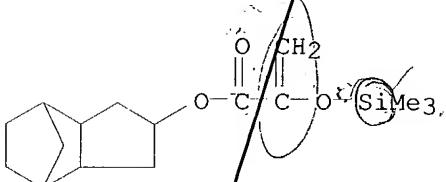
(addition vinyl polymers having hydrophilic group and other functional group for coatings for photoresist)

RN 195732-05-9 HCAPLUS

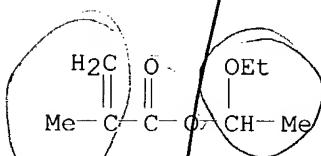
CN 2-Propenoic acid, 2-methyl-, 1-ethoxyethyl ester, polymer with octahydro-4,7-methano-1H-inden-2-yl 2-[(trimethylsilyl)oxy]-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 195732-04-8
CMF C16 H26 O8 Si



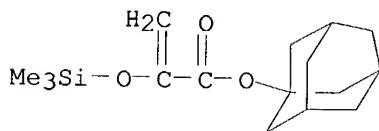
CM 2
CRN 51920-52-6
CMF C8 H14 O3



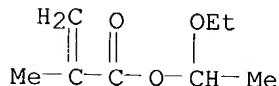
RN 195732-09-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1-ethoxyethyl ester, polymer with tricyclo[3.3.1.13,7]dec-1-yl 2-[(trimethylsilyl)oxy]-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 195732-08-2
CMF C16 H26 O3 Si



CM 2

CRN 51920-52-6
CMF C8 H14 O3

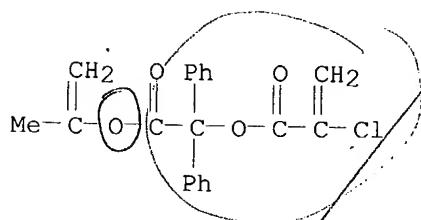
L109 ANSWER 56 OF 56 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1996:132827 HCAPLUS
 DN 124:189523
 TI Photosensitive resin composition as photoresist with high-sensitivity and high-resolution
 IN Sasahara, Atsuko; Kumada, Teruhiko; Yoshida, Yasuhiro; Horibe, Hideo;
 Kubota, Shigeru
 PA Mitsubishi Electric Corp, Japan
 SO Jpn. Kokai Tokkyo Koho, 42 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07295221	A2	19951110	JP 1994-89917	19940427
PRAI JP 1994-89917		19940427		

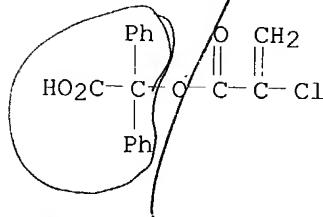
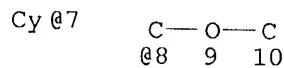
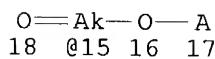
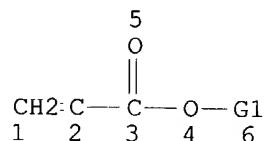
AB The title composition comprises a polymer containing a carboxyl group and a specified carboxylic acid ester group at its side chain and a compound capable of generating an acid or base on being irradiated and optionally a poly-carboxylic acid ester.
 IT 173947-77-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepared for photoresist composition)
 RN 173947-77-8 HCAPLUS
 CN Benzeneacetic acid, α -[(2-chloro-1-oxo-2-propenyl)oxy]- α -phenyl-, polymer with 1-methylethenyl α -[(2-chloro-1-oxo-2-propenyl)oxy]- α -phenylbenzeneacetate (9CI) (CA INDEX NAME)

CM 1

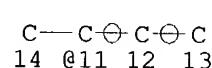
CRN 173947-52-9
CMF C20 H17 Cl O4



CM 2

CRN 173947-36-9
CMF C17 H13 Cl O4=> => D QUE
L74 SCR 2043
L76 STR

11 CA references.
printed previously
in other



2 searches.
Just printed
with bib
+ structure

VAR G1=7/8/11/15

NODE ATTRIBUTES:

```

NSPEC IS R AT 11
NSPEC IS R AT 12
NSPEC IS R AT 13
NSPEC IS RC AT 17
CONNECT IS E1 RC AT 18
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 7
DEFAULT ECLEVEL IS LIMITED

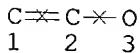
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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L79 19699 SEA FILE=REGISTRY SSS FUL L76 AND L74
L80 STR



NODE ATTRIBUTES:

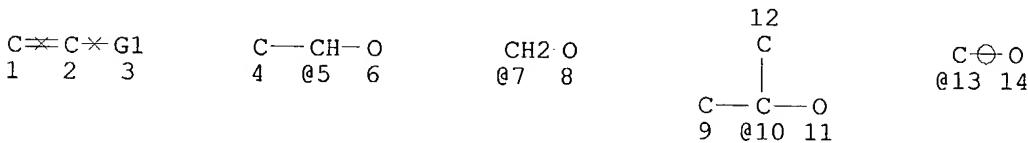
NSPEC IS RC AT 1
NSPEC IS RC AT 2
NSPEC IS RC AT 3
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE

L82 911 SEA FILE=REGISTRY SUB=L79 SSS FUL L80
L86 STR



VAR G1=5/7/10/13

NODE ATTRIBUTES:

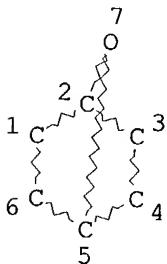
NSPEC IS RC AT 1
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NSPEC IS RC AT 4
NSPEC IS RC AT 9
NSPEC IS RC AT 12
NSPEC IS R AT 13
NSPEC IS R AT 14
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L90 1871 SEA FILE=REGISTRY SUB=L79 SSS FUL L86
L91 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

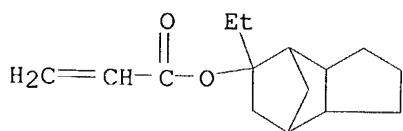
STEREO ATTRIBUTES: NONE

L93	92 SEA FILE=REGISTRY SUB=L79 SSS FUL L91
L94	32 SEA FILE=HCAPLUS ABB=ON L93
L95	28 SEA FILE=HCAPLUS ABB=ON L94(L) (PREP OR SPN OR IMF)/RL
L96	27 SEA FILE=HCAPLUS ABB=ON L95(L)?RESIST?
L97	793 SEA FILE=HCAPLUS ABB=ON L90
L98	452 SEA FILE=HCAPLUS ABB=ON L97(L)?RESIST?
L99	365 SEA FILE=HCAPLUS ABB=ON L98(L) (PREP OR SPN OR IMF)/RL
L100	131 SEA FILE=HCAPLUS ABB=ON L99 AND PATTERN?
L101	119 SEA FILE=HCAPLUS ABB=ON L100 AND PHOTORESISTS/IT
L102	20 SEA FILE=HCAPLUS ABB=ON L101 AND (?VINYL? OR ?ALLYL?)
L105	35 SEA FILE=HCAPLUS ABB=ON L101 AND ETHER?
L106	44 SEA FILE=HCAPLUS ABB=ON L102 OR L105
L107	526 SEA FILE=HCAPLUS ABB=ON L82
L108	67 SEA FILE=HCAPLUS ABB=ON L107(L) PHOTORESIST?(L) (PREP OR IMF OR SPN)/RL
L109	56 SEA FILE=HCAPLUS ABB=ON (L108 OR L106 OR L96) NOT (L106 OR L96)
L110	11 SEA FILE=HCAPLUS ABB=ON L108 NOT L109

=> D L110 1-11 BIB HITSTR

11 CA references which
were printed in
full in other
2 searches

L110 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2004:177627 HCAPLUS
 DN 140:347367
 TI Design and synthesis of new photoresist materials for ArF lithography
 AU Seo, Hwang-Un; Jin, Sung-Ho; Choi, Sang-Jun; Gal, Yeong-Soon; Lim, Kwon Taek
 CS Department of Chemistry Education and Chemistry Institute for Functional Materials, Pusan National University, Pusan, 609-735, S. Korea
 SO Journal of Applied Polymer Science (2004), 92(1), 165-170
 CODEN: JAPNAB; ISSN: 0021-8995
 PB John Wiley & Sons, Inc.
 DT Journal
 LA English
 IT 328061-11-6P 328061-12-7P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (vinyl ether-maleic anhydride alternating copolymers for chemical amplified vacuum-UV photorests with excellent dry etch resistance and high resolution)
 RN 328061-11-6 HCAPLUS
 CN 2-Propenoic acid, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester, polymer with 3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA INDEX NAME)
 CM 1
 CRN 307495-75-6
 CMF C15 H22 O2



CM 2

CRN 110-87-2
CMF C5 H8 O



CM 3

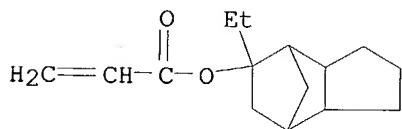
CRN 108-31-6
CMF C4 H2 O3



RN 328061-12-7 HCAPLUS
CN 2-Propenoic acid, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl ester,
polymer with 2-ethoxy-3,4-dihydro-2H-pyran and 2,5-furandione (9CI) (CA
INDEX NAME)

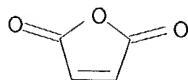
CM 1

CRN 307495-75-6
CMF C15 H22 O2



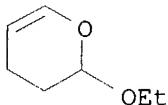
CM 2

CRN 108-31-6
CMF C4 H2 O3



CM 3

CRN 103-75-3
CMF C7 H12 O2



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:907515 HCAPLUS
DN 139:401544
TI Positive-working chemically amplification type photoresist composition showing improved pattern profile and line edge roughness
IN Sato, Kenichiro
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 81 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

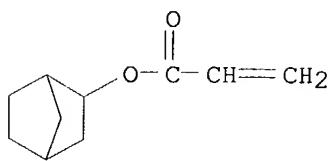
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003330194	A2	20031119	JP 2002-138810	20020514
PRAI JP 2002-138810		20020514		
OS MARPAT 139:401544				
IT 625422-21-1P 625422-27-7P 625422-30-2P 625422-33-5P 625422-36-8P 625422-43-7P 625422-46-0P 625462-07-9P				

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos.-working chemical amplification type photoresist composition showing improved pattern profile and line edge roughness)

RN 625422-21-1 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylpropyl ester, polymer with 5(or 6)-cyanobicyclo[2.2.1]hept-2-yl 2-propenoate, 2-(ethenyl)ethyl acetate and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

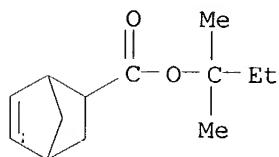
CRN 398152-51-7
CMF C11 H13 N O2
CCI IDS



D1-CN

CM 2

CRN 398140-58-4
CMF C13 H20 O2



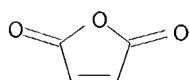
CM 3

CRN 6026-79-5
CMF C6 H10 O3

AcO-CH₂-CH₂-O-CH=CH₂

CM 4

CRN 108-31-6
CMF C4 H2 O3

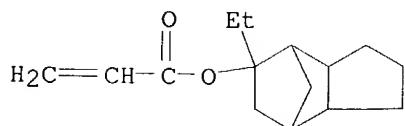


RN 625422-27-7 HCAPLUS

CN 2-Propenoic acid, 2-(2-cyanoethoxy)ethyl ester, polymer with
3,4-dihydro-2-methoxy-2H-pyran, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl
2-propenoate and 2,5-furandione (9CI) (CA INDEX NAME)

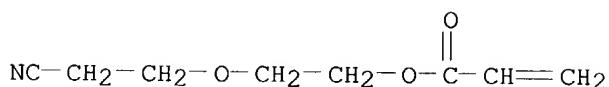
CM 1

CRN 307495-75-6
CMF C15 H22 O2



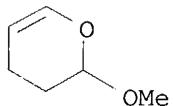
CM 2

CRN 7790-03-6
CMF C8 H11 N O3



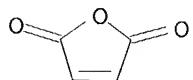
CM 3

CRN 4454-05-1
CMF C6 H10 O2



CM 4

CRN 108-31-6
CMF C4 H2 O3

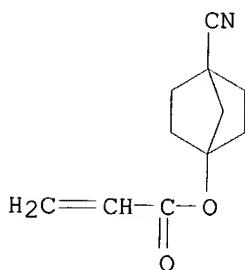


RN 625422-30-2 HCAPLUS

CN 2-Propenoic acid, 4-cyanobicyclo[2.2.1]hept-1-yl ester, polymer with 2-(ethenyloxy)-2-methylpropane, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-propenoate and 2,5-furandione (9CI) (CA INDEX NAME)

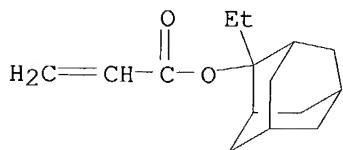
CM 1

CRN 515837-29-3
CMF C11 H13 N O2



CM 2

CRN 303186-14-3
CMF C15 H22 O2



CM 3

CRN 926-02-3
CMF C6 H12 O

t-BuO—CH=CH₂

CM 4

CRN 108-31-6
CMF C4 H2 O3



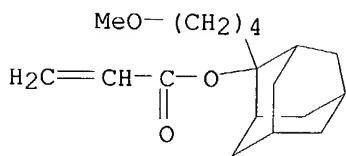
RN 625422-33-5 HCPLUS

CN 2-Propenoic acid, 2-cyanoethyl ester, polymer with (ethenylloxy)cyclohexane, 2,5-furandione and 2-(4-methoxybutyl)tricyclo[3.3.1.13,7]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

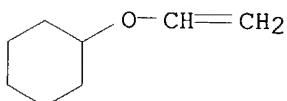
CRN 581784-05-6

CMF C18 H28 O3



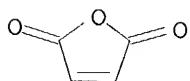
CM 2

CRN 2182-55-0
CMF C8 H14 O



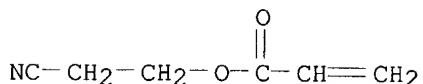
CM 3

CRN 108-31-6
CMF C4 H2 O3



CM 4

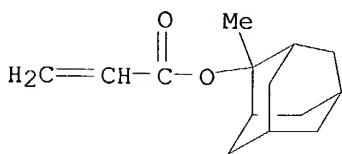
CRN 106-71-8
CMF C6 H7 N O2



RN 625422-36-8 HCPLUS
CN 2-Propenoic acid, 2-(2-cyanoethoxy)propyl ester, polymer with
1-(ethenyloxy)-2-methylpropane, 2,5-furandione, hexahydro-2-oxo-3,5-
methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 2-
methyltricyclo[3.3.1.13,7]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

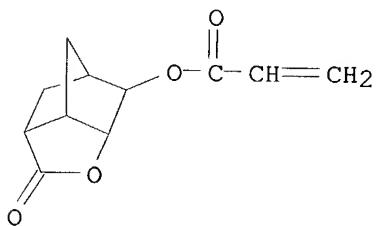
CM 1

CRN 249562-06-9
CMF C14 H20 O2



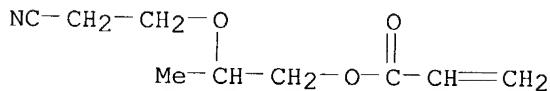
CM 2

CRN 242129-35-7
CMF C11 H12 O4



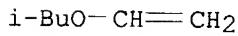
CM 3

CRN 166441-56-1
CMF C9 H13 N O3



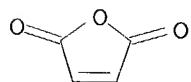
CM 4

CRN 109-53-5
CMF C6 H12 O



CM 5

CRN 108-31-6
CMF C4 H8 O3



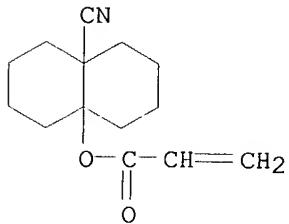
RN 625422-43-7 HCPLUS

CN Tricyclo[3.3.1.13,7]decane-1-carboxylic acid, 2-(ethenyl)ethyl ester, polymer with 8a-cyanoctahydro-4a(2H)-naphthalenyl 2-propenoate, 2,5-furandione and 2-(4-methoxybutyl)tricyclo[3.3.1.13,7]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 625422-42-6

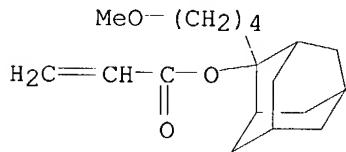
CMF C14 H19 N O2



CM 2

CRN 581784-05-6

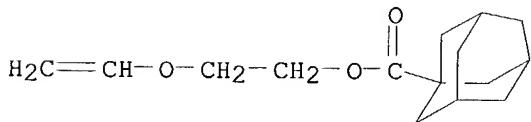
CMF C18 H28 O3



CM 3

CRN 219774-72-8

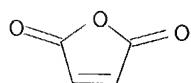
CMF C15 H22 O3



CM 4

CRN 108-31-6

CMF C4 H2 O3



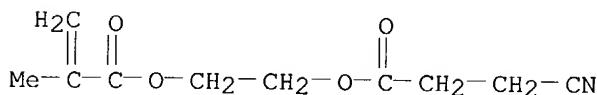
RN 625422-46-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(3-cyano-1-oxopropoxy)ethyl ester, polymer with 4',5'-dihydrospiro[bicyclo[2.2.1]hept-5-ene-2,3'(2'H)-furan]-2'-one, 1-(ethenyl)butane, 5-ethyloctahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 515822-01-2

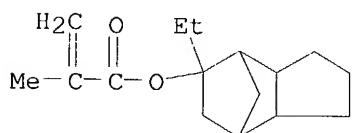
CMF C10 H13 N O4



CM 2

CRN 348089-09-8

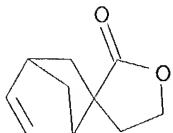
CMF C16 H24 O2



CM 3

CRN 72377-80-1

CMF C10 H12 O2



CM 4

CRN 111-34-2

CMF C6 H12 O

n-BuO—CH=CH2

CM 5

CRN 108-31-6
CMF C4 H2 O3

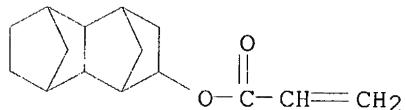


RN 625462-07-9 HCPLUS

CN 2-Propenoic acid, 6(or 7)-cyanodecahydro-1,4:5,8-dimethanonaphthalen-2-yl ester, polymer with 1-[[2-(ethenyloxy)ethoxy]methyl]tricyclo[3.3.1.13,7]de cane, 2,5-furandione and 2-methyltricyclo[3.3.1.13,7]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

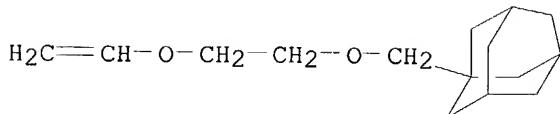
CRN 625462-06-8
CMF C16 H19 N O2
CCI IDS



D1-CN

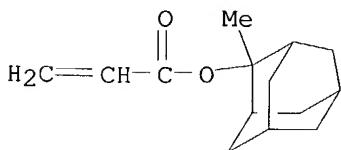
CM 2

CRN 625462-05-7
CMF C15 H24 O2



CM 3

CRN 249562-06-9
CMF C14 H20 O2



CM 4

CRN 108-31-6
CMF C4 H2 O3

L110 ANSWER 3 OF 11 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2003:855509 HCPLUS
 DN 139:356051
 TI Photosensitive polymers, resist compositions comprising the same, and methods for forming photoresistive patterns
 IN Choi, Sangjun; Kim, Hyunwo; Moon, Joontae; Woo, Sanggyun
 PA S. Korea
 SO U.S. Pat. Appl. Publ., 10 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003203306	A1	20031030	US 2002-123431	20020417
	DE 10249006	A1	20031120	DE 2002-10249006	20021021
	JP 2003313249	A2	20031106	JP 2003-9484	20030117
PRAI	US 2002-123431	A	20020417		
IT	618095-98-0P				

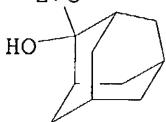
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photosensitive polymers for photoresist compns)

RN 618095-98-0 HCPLUS
 CN 2-Propenoic acid, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 2-[3-(ethenyloxy)propyl]tricyclo[3.3.1.13,7]decan-2-ol and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

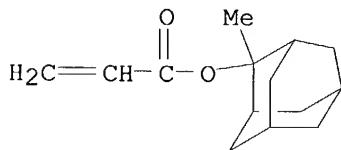
CRN 618095-89-9
CMF C15 H24 O2

H₂C=CH-O-(CH₂)₃



CM 2

CRN 249562-06-9
CMF C14 H₂₀ O₂



CM 3

CRN 108-31-6
CMF C₄ H₂ O₃



IT 618096-02-9P

RL: SPN (**Synthetic preparation**); TEM (Technical or engineered material use); PREP (**Preparation**); USES (**Uses**)
(photosensitive polymers for **photoresist** compns)

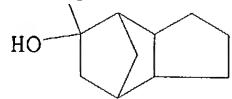
RN 618096-02-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with bicyclo[2.2.1]hept-2-ene, 5-[3-(ethenyloxy)propyl]octahydro-
4,7-methano-1H-inden-5-ol and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

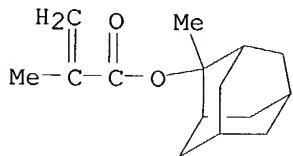
CRN 618095-92-4
CMF C₁₅ H₂₄ O₂

H₂C=CH-O-(CH₂)₃



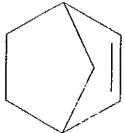
CM 2

CRN 177080-67-0
CMF C15 H22 O2



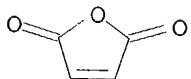
CM 3

CRN 498-66-8
CMF C7 H10



CM 4

CRN 108-31-6
CMF C4 H2 O3



L110 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:794185 HCAPLUS
DN 137:317926
TI Polymer, resist composition and patterning process
IN Nishi, Tsunehiro; Nakashima, Mutsuo; Tachibana, Seiichiro; Funatsu, Kenji
PA Shin-Etsu Chemical Co., Ltd., Japan
SO U.S. Pat. Appl. Publ., 38 pp.
CODEN: USXXCO

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002150835	A1	20021017	US 2002-73223	20020213
	JP 2002317016	A2	20021031	JP 2002-21562	20020130
PRAI	JP 2001-37247	A	20010214		
	JP 2001-37262	A	20010214		
	JP 2001-37271	A	20010214		

applicants

✓

IT 470722-46-4P 470722-47-5P 470722-48-6P
470722-49-7P 470722-50-0P 470722-51-1P
470722-52-2P 470722-53-3P 470722-54-4P
470722-55-5P 470722-56-6P 470722-57-7P

RL: PRP (Properties); SPN (Synthetic preparation); TEM
(Technical or engineered material use); PREP (Preparation); USES
(Uses)

(polymer for photoresist composition and patterning process)

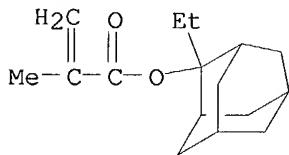
RN 470722-46-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 1-(ethenyl)oxy-2-methylpropane (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

CMF C16 H24 O2



CM 2

CRN 109-53-5

CMF C6 H12 O

i-BuO—CH=CH₂

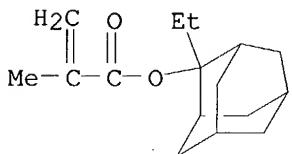
RN 470722-47-5 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

CMF C16 H24 O2



CM 2

CRN 108-05-4

CMF C4 H6 O2

AcO—CH=CH₂

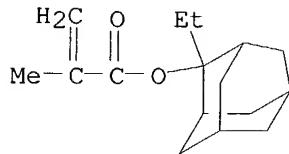
RN 470722-48-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with (ethenyl)oxy)cyclohexane (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

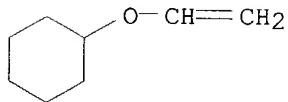
CMF C16 H24 O2



CM 2

CRN 2182-55-0

CMF C8 H14 O



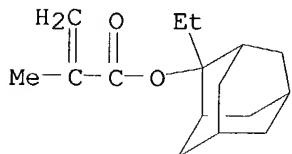
RN 470722-49-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 2,3-dihydrofuran (9CI) (CA INDEX NAME)

CM 1

CRN 209982-56-9

CMF C16 H24 O2



CM 2

CRN 1191-99-7

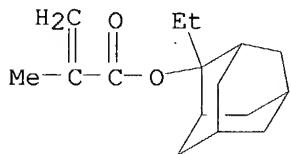
CMF C4 H6 O



RN 470722-50-0 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 3,4-dihydro-2H-pyran (9CI) (CA INDEX NAME)

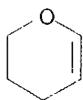
CM 1

CRN 209982-56-9
CMF C16 H24 O2



CM 2

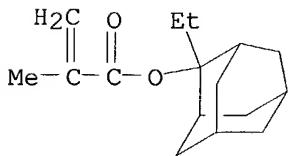
CRN 110-87-2
CMF C5 H8 O



RN 470722-51-1 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 2-ethoxy-3,4-dihydro-2H-pyran (9CI) (CA INDEX NAME)

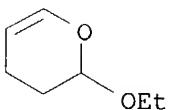
CM 1

CRN 209982-56-9
CMF C16 H24 O2



CM 2

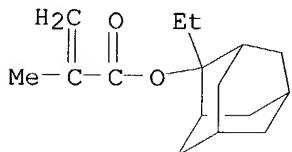
CRN 103-75-3
CMF C7 H12 O2



RN 470722-52-2 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 1,3-dioxol-2-one (9CI) (CA INDEX NAME)

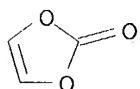
CM 1

CRN 209982-56-9
CMF C16 H24 O2



CM 2

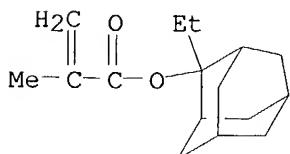
CRN 872-36-6
CMF C3 H2 O3



RN 470722-53-3 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 5-methyl-2(3H)-furanone (9CI) (CA INDEX NAME)

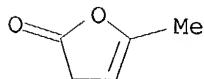
CM 1

CRN 209982-56-9
CMF C16 H24 O2



CM 2

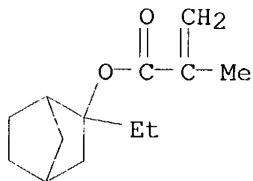
CRN 591-12-8
CMF C5 H6 O2



RN 470722-54-4 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with 1-(ethenyloxy)-2-methylpropane (9CI) (CA INDEX NAME)

CM 1

CRN 330595-98-7
CMF C13 H20 O2



CM 2

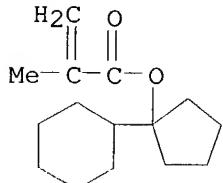
CRN 109-53-5
CMF C6 H12 O

i-BuO-CH=CH₂

RN 470722-55-5 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 1-cyclohexylcyclopentyl ester, polymer with 1-(ethenyloxy)-2-methylpropane (9CI) (CA INDEX NAME)

CM 1

CRN 366808-98-2
CMF C15 H24 O2



CM 2

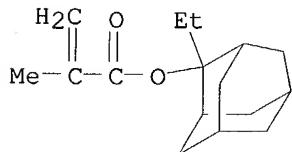
CRN 109-53-5
CMF C6 H12 O

i-BuO-CH=CH₂

RN 470722-56-6 HCPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1-(ethenyloxy)-2-methylpropane
and 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate (9CI) (CA
INDEX NAME)

CM 1

CRN 209982-56-9
CMF C16 H24 O2



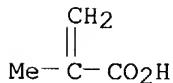
CM 2

CRN 109-53-5
CMF C6 H12 O

i-BuO-CH=CH₂

CM 3

CRN 79-41-4
CMF C4 H6 O2

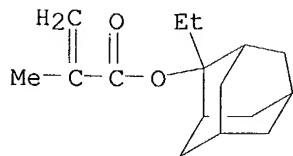


RN 470722-57-7 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with 1-(ethenyloxy)-2-methylpropane and tetrahydro-2-oxo-3-furanyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

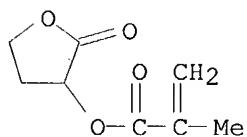
CM 1

CRN 209982-56-9

CMF C16 H24 O2



CM 2

CRN 195000-66-9
CMF C8 H10 O4

CM 3

CRN 109-53-5
CMF C6 H12 Oi-BuO-CH=CH₂

L110 ANSWER 5 OF 11 HCPLUS COPYRIGHT 2004 ACS on STN

AN 2002:792710 HCPLUS

DN 137:317922

TI Positive photoresist compositions offering sharp patterns

IN Sato, Kenichiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 85 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002303984	A2	20021018	JP 2001-135245	20010502
PRAI JP 2001-22010	A	20010130		

OS MARPAT 137:317922

IT 398140-48-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photoresist compns. offering sharp patterns)

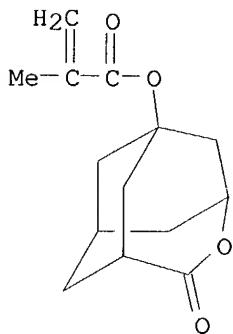
RN 398140-48-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-

2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl
2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

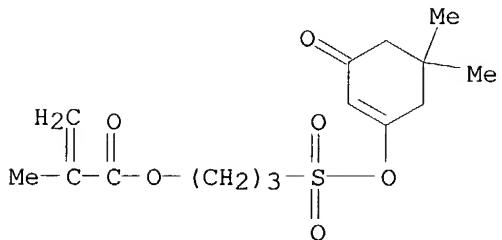
CM 1

CRN 348596-87-2
CMF C14 H18 O4



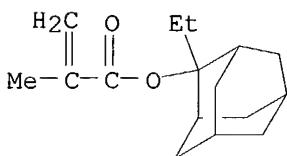
CM 2

CRN 289040-47-7
CMF C15 H22 O6 S



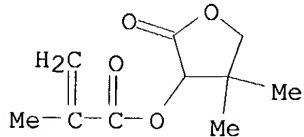
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4



L110 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:673047 HCAPLUS
DN 137:224108
TI Storage-stable excimer laser-sensitive positive-working photosensitive compositions with reduced pattern variation on defocusing
IN Kodama, Kunihiro; Sato, Kenichiro
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 86 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 4

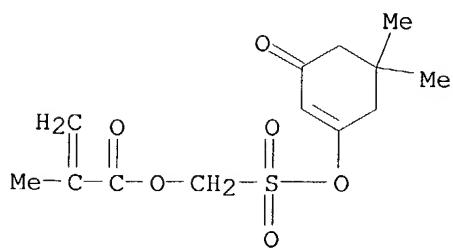
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002251012	A2	20020906	JP 2001-48784	20010223
	US 2003017415	A1	20030123	US 2002-79414	<u>20020222</u>
PRAI	JP 2001-48602	A	20010223		
	JP 2001-48783	A	20010223		
	JP 2001-48784	A	20010223		
	JP 2001-48880	A	20010223		
	JP 2001-157366	A	20010525		
	JP 2001-157367	A	20010525		

IT 455521-72-9P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chemical amplified storage-stable excimer laser-sensitive pos. photoresists with reduced pattern variation on defocusing)

RN 455521-72-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, [(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]methyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 5-oxo-4-oxatricyclo[4.3.1.13,8]undec-1-yl 2-methyl-2-propenoate and tetrahydro-4,4-dimethyl-2-oxo-3-furanyl 2-methyl-2-propenoate (SCI) (CA INDEX NAME)

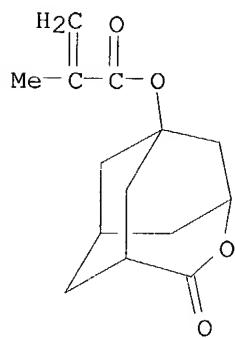
CM 1

CRN 455521-71-8
CMF C13 H18 O6 S



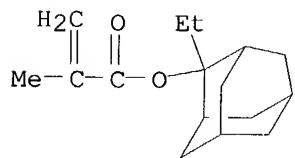
CM 2

CRN 348596-87-2
CMF C14 H18 O4



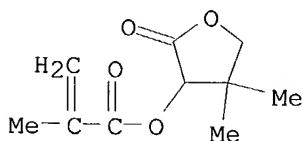
CM 3

CRN 209982-56-9
CMF C16 H24 O2



CM 4

CRN 156938-13-5
CMF C10 H14 O4



L110 ANSWER 7 OF 11 HCPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:464504 HCPLUS
 DN 137:54614
 TI Far UV-sensitive positive-working photoresist composition containing specific acid-decomposing composition
 IN Sato, Kenichiro
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 75 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

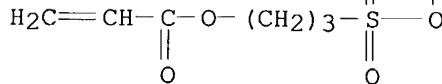
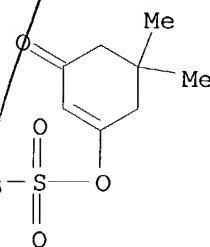
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002174901	A2	20020631	JP 2000-371963	20001206
PRAI JP 2000-371963		20001206		
IT 438221-30-8P				

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (far UV-sensitive pos.-working photoresist composition)

RN 438221-30-8 HCPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 3-[[5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl 2-propenoate, 2,5-furandione and hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate (9CI) (CA INDEX NAME)

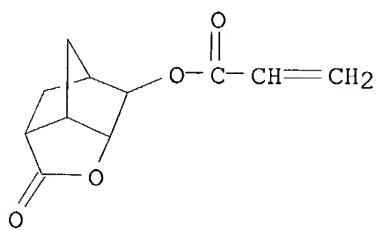
CM 1

CRN 398140-96-0
 CMF C14 H20 O6 S



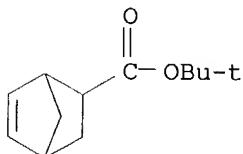
CM 2

CRN 242129-35-7
 CMF C11 H12 O4



CM 3

CRN 154970-45-3
CMF C12 H18 O2



CM 4

CRN 108-31-6
CMF C4 H2 O3



L110 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:447173 HCAPLUS
DN 137:39320
TI Positively working photoresist composition for exposure to ultraviolet ray
IN Sato, Kenichiro
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 71 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002169293	A2	20020614	JP 2000-370232	20001205
PRAI	JP 2000-370232		20001205		

IT 437610-19-0P

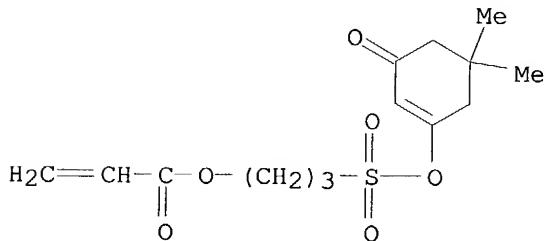
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos. working photoresist composition for UV ray exposure for large defocus latitude and low roughness on side wall of contact hole)

RN 437610-19-0 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylpropyl ester,
polymer with 3-[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl
2-propenoate, 2,5-furandione and 2-methylbicyclo[2.2.1]hept-2-yl
2-propenoate (9CI) (CA INDEX NAME)

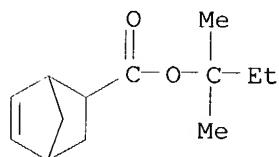
CM 1

CRN 398140-96-0
CMF C14 H20 O6 S



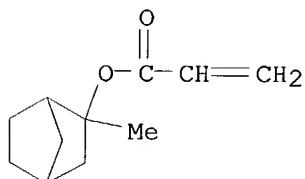
CM 2

CRN 398140-58-4
CMF C13 H20 O2



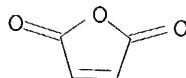
CM 3

CRN 328087-78-1
CMF C11 H16 O2



CM 4

CRN 108-31-6
CMF C4 H2 O3

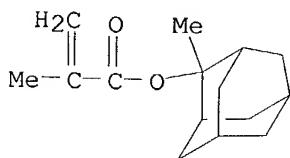


L110 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:178377 HCAPLUS
 DN 134:229705
 TI Chemically amplified photoresist compositions and process for the formation of stable photoresist patterns
 IN Takechi, Satoshi; Kotachi, Akiko; Nozaki, Koji; Yano, Ei; Watanabe, Keiji; Namiki, Takahisa; Igarashi, Miwa; Makino, Yoko; Takahashi, Makoto
 PA Fujitsu Limited, Japan
 SO U.S., 55 pp., Cont.-in-part of U.S. 6,013,416.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6200725	B1	20010313	US 1997-969368	19971128
	JP 09090637	A2	19970404	JP 1995-312722	19951130
	JP 3297272	B2	20020702		
	JP 09073173	A2	19970318	JP 1996-50264	19960307
	US 6013416	A	20000111	US 1996-673739	19960627
	US 5968713	A	19991019	US 1997-896833	19970718
	US 2001003640	A1	20010614	US 2000-739259	20001219
	US 6329125	B2	20011211		
PRAI	JP 1995-162287	A	19950628		
	JP 1995-178717	A	19950714		
	JP 1995-312722	A	19951130		
	JP 1996-50264	A	19960307		
	US 1996-673739	A2	19960627		
	JP 1996-320105	A	19961129		
	US 1997-969368	A3	19971128		
IT	186585-97-7P 186586-04-9P				
	RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses) (preparation of alkali-insol. polymers and copolymers for chemical amplified photoresist composition)				
RN	186585-97-7 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 1,3-dioxol-2-one (9CI) (CA INDEX NAME)				

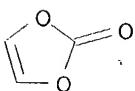
CM 1

CRN 177080-67-0
CMF C15 H22 O2



CM 2

CRN 872-36-6
CMF C3 H2 O3

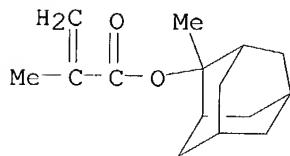


RN 186586-04-9 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.13,7]dec-2-yl ester,
polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0
CMF C15 H22 O2



CM 2

CRN 108-05-4
CMF C4 H6 O2

AcO-CH=CH₂

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 10 OF 11 HCPLUS COPYRIGHT 2004 ACS on STN
AN 2000:823000 HCPLUS
DN 133:367848
TI Positive-working resist composition
IN Sato, Kenichiro; Kodama, Kunihiko; Aogo, Toshiaki
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 32 pp.

CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000321771	A2	20001124	JP 1999-127296	19990507
	US 6596458	B1	20030722	US 2000-563436	20000503
PRAI	JP 1999-127296	A	19990507		
	JP 1999-186607	A	19990630		
	JP 1999-193601	A	19990707		
	JP 1999-193602	A	19990707		
	JP 1999-193603	A	19990707		

IT 307976-34-7P 307976-36-9P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photoresist composition containing acrylic polymer and acid generator)

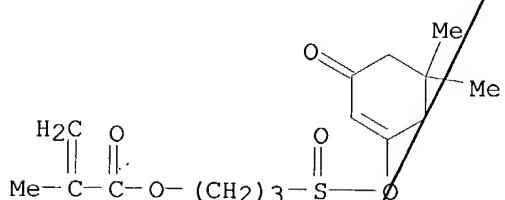
RN 307976-34-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[(5,5-dimethyl-3-oxo-1-cyclohexen-1-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 289040-47-7

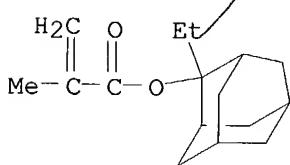
CMF C15 H22 O6 S



CM 2

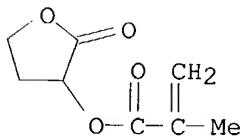
CRN 209982-56-9

CMF C16 H24 O2



CM 3

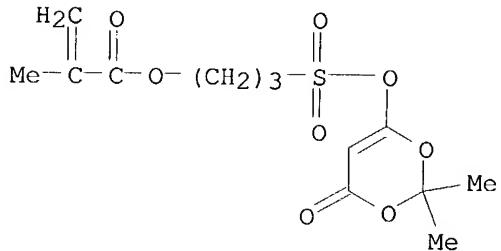
CRN 195000-66-9
CMF C8 H10 O4



RN 307976-36-9 HCPLUS
CN 2-Propenoic acid, 2-methyl-, 3-[[(2,2-dimethyl-4-oxo-4H-1,3-dioxin-6-yl)oxy]sulfonyl]propyl ester, polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

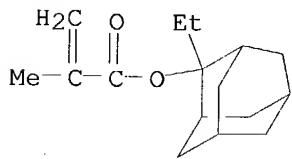
CM 1

CRN 307976-35-8
CMF C13 H18 O8 S



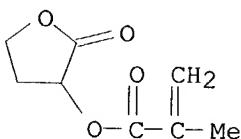
CM 2

CRN 209982-56-9
CMF C16 H24 O2



CM 3

CRN 195000-66-9
CMF C8 H10 O4



L110 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:713527 HCAPLUS
 DN 131:329897
 TI Negative-working resist composition and resist pattern formation using same

IN Nozaki, Koji; Yano, Akira
 PA Fujitsu Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11311860	A2	19991109	JP 1998-119385	19980428
	DE 19912047	A1	19991125	DE 1999-19912047	19990317
	US 6027856	A	20000222	US 1999-272400	19990319
	TW 422942	B	20010221	TW 1999-88104428	19990320

PRAI JP 1998-119385 A 19980428
 OS MARPAT 131:329897
 IT 249504-29-8P

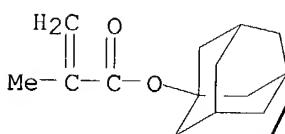
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (neg.-working photoresist containing alkali-soluble resin, allyl alc. compound, and acid generator)

RN 249504-29-8 HCAPLUS

CN Benzoic acid, ethenyl ester, polymer with 1H-pyrrole-2,5-dione and tricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

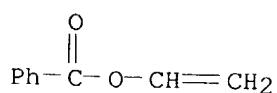
CM 1

CRN 16887-36-8
 CMF C14 H20 O2



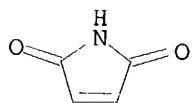
CM 2

CRN 769-78-8
 CMF C9 H8 O2



CM 3

CRN 541-59-3
CMF C4 H3 N O2



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